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ECONOMIC AND ENVIRONMENTAL QUESTIONS: REPORTS OF SUBSIDIARY BODIES, CONFERENCES AND RELATED QUESTIONS

Technical cooperation among developing countries

Report of the Secretary-General

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INTRODUCTION

1. The present report has been prepared in response to Economic and Social Council resolution 1992/41 on technical cooperation among developing countries (TCDC).

2. In adopting that resolution in July 1992 and acknowledging progress in that area, the Council noted that TCDC had nevertheless continued to be applied only marginally in the implementation of programmes and projects, and called on all parties to support and give first consideration to the use of TCDC modality. It invited all countries and the United Nations development system to review their existing policies and procedures in order to improve the environment for TCDC and facilitate its widespread use.

3. While a longer reporting period than the one and a half years that have elapsed since the adoption of Council resolution 1992/41 would have permitted a better assessment of initiatives undertaken by Governments and the United Nations system to implement the wide range of activities envisaged, many encouraging trends in the implementation of TCDC activities have continued and gathered momentum, particularly since 1991. Those trends were reported to the High-level Committee on the Review of Technical Cooperation Among Developing Countries at its eighth session, 25-28 May 1993.

4. Some of the information made available to the High-level Committee in a report entitled "Review of progress made in implementing the Buenos Aires Plan of Action and decisions of the High-level Committee" (TCDC/8/2) also covers the period under review and is relevant to the review of the implementation of Council resolution 1992/41. Highlights of that report are therefore included in the present report (the full report is available on request).

I. PROGRESS MADE AS REPORTED TO THE HIGH-LEVEL COMMITTEE ON TECHNICAL COOPERATION IN DEVELOPING COUNTRIES (TCDC/8/2) AND ACTIVITIES UNDERTAKEN THEREAFTER

A. Highlights of the report (1991-1992)

5. In November 1992, the Special Unit for Technical Cooperation Among Developing Countries sent out improved questionnaires to obtain information on TCDC activities carried out during 1991-1992 by Governments and organizations and agencies of the United Nations system. Responses were received from 42 developing countries, 8 developed countries and 14 organizations and agencies of the United Nations system. The above-mentioned report (TCDC/8/2) provided an analysis of that information.

6. The report indicated that according to the information received from the developing countries on activities using the TCDC modality, TCDC activities had significantly increased, as was reflected in the number of experts and trainees exchanged, joint studies and technical or scientific workshops carried out, networking arrangements set up and bilateral agreements concluded.

7. Intense activities were reported during 1991-1992, with more than 5,300 trainees exchanged among developing countries. More than 3,750 experts had also been exchanged, compared to some 700 experts during the previous reporting period. In addition, 15 countries had participated in 328 technical and scientific workshops. Eight countries had carried out jointly with other developing countries 95 joint studies and researches on development issues of common interest.

8. The responding agencies and organizations of the United Nations system also reported that they had been increasingly attaching a high priority to TCDC. Promotional and operational activities supported by or through the system had increased.

9. Eight developed countries responded to the questionnaire and expressed their recognition of the importance of TCDC in international cooperation, and some stated that they had already started to incorporate it in their development policy.

10. The report also noted some constraints in utilizing the TCDC modality, including the limited effectiveness of national focal points, the lack of financial resources and the need for a stronger commitment and greater efforts to use/apply the modality.

11. The report concluded that (a) strengthening the national focal points and coordination mechanism had emerged as one of the major recommendations of developing countries; and (b) greater efforts and willingness were needed to provide the main inputs required by, inter alia, increasing the use of the Indicative Planning Figures, increasing the allocations from national treasuries and ensuring a greater flexibility on the part of donors in the use of bilateral assistance to carry out activities implemented through TCDC.

B. Activities undertaken since the adoption of Council resolution 1992/41

12. In preparing the present report, the Special Unit for TCDC requested from Governments and from the organizations and agencies of the United Nations system information concerning (a) projects and programmes that had been launched since July 1992 and which utilized TCDC; (b) national policy changes or refinement that had occurred relating to TCDC; (c) the use of expertise and facilities from the developing countries; and (d) the strengthening of TCDC national focal points. Responses were received from 72 Governments through UNDP field offices and from 18 organizations and agencies of the United Nations system. Nine countries and two agencies reported no significant activities.

13. Some important initiatives have been undertaken both by Governments and by the organizations and agencies of the United Nations system. While the information provided to the Special Unit for TCDC has not been as comprehensive as might have been hoped, some common trends have been discerned and are summarized below.

14. It is evident that the resolution has been widely disseminated and that its implications are better appreciated by both the developing countries and the organizations and agencies of the United Nations system. The extensive promotional work undertaken to make the decision known has undoubtedly contributed to that result.

1. Developing countries

Promotional activities

15. Many countries expressed a renewed commitment to and enthusiasm for increasing the use of the TCDC modality to undertake development activities. They reported organizing and/or participating in regional sensitization programmes, international symposia and national workshops on the concept and application of TCDC. Some have initiated or completed the preparation of compendia on capacities and needs in various sectors, while others have taken part in capacities-matching exercises.

16. A number of countries also reported participating in various regional focal points meetings during the review period in Ethiopia, Sri Lanka, Turkey and Venezuela. The meetings of TCDC focal points have been of great assistance in articulating and refining the role and functions of the TCDC national focal points. National focal point and sensitization workshops on the TCDC modality were held in 1993 in several countries including Libya (February), Nigeria (September) and Zambia (October). Mali, Senegal and Sierra Leone are planning to hold similar workshops. Morocco hosted an expert group meeting to review TCDC in February 1993.

17. Bolivia has completed a compendia of capacities and needs, Lesotho and Libya are each in the process of preparing one and Egypt is updating an earlier version. Morocco is preparing to host a capacities-/needs-matching exercise in September 1994.

Operational activities

18. According to the information received from the developing countries, it is clear that many of them have undertaken TCDC operational activities during the period under review. They have exchanged expert services, provided and/or received training, participated in numerous technical workshops and skills transfer seminars and signed cooperative agreements.

19. At least 11 umbrella projects to finance TCDC activities have been approved or initiated during the reporting period by the developing countries, including Argentina, Cape Verde, the Democratic People's Republic of Korea, Morocco, the Republic of Moldova, Pakistan, Philippines, Rwanda, Tunisia, Sri Lanka and Ukraine. Those projects cover such areas as water supply and sanitation, basic education, administrative reforms, civil air transport, telecommunications, desertification control and drug control.

20. With regard to training, Malaysia, for instance, provided 23 short-term specialized training courses during 1993, involving 10 training institutions and

194 trainees from 52 countries. It also organized 25 study tours during the same period. Singapore offered 14 training courses, while Thailand reported hosting training/orientation for 3,000 trainees from developing countries on a yearly basis. Myanmar participated in 17 training courses provided mainly by China and Indonesia. From July 1992 to February 1994, Indonesia offered 50 training programmes/study tours in which a total of 544 trainees from 61 developing countries participated. Five of the training programmes promoted a new scheme, entitled "Self-propelling growth scheme", for which Indonesia organized two international expert group meetings in April and September 1993. China offered 19 training courses in 1993 and is in the process of implementing an additional 12 courses in 1994. The courses cover a wide range of areas, including health care for women and children, acupuncture, agricultural machinery, rice cultivation, biogas technology, small hydropower and meat processing.

21. Workshops have also been organized or planned by a number of countries with the support of the Special Unit for TCDC, including Cuba, the Lao People's Democratic Republic, Turkey and the Republic of Moldova, covering such areas as the reconditioning of spare parts, small-scale photography in urban planning, medicinal plants and trade.

22. Many countries indicated that they have bilateral and multilateral cooperation agreements with other developing countries, involving training, cooperation and the exchange of technical, cultural, economic and scientific experience in different sectors. For example, Turkey indicated that since 1988 it has signed 344 bilateral cooperation agreements and has implemented 129 of them. Pakistan reported that as a result of a TCDC capacities and needs-matching exercise in the field of civil air transport, held in Karachi in 1993, in which 28 developing countries participated, 225 agreements have been signed. Colombia has signed some 36 bilateral and multilateral agreements with a number of countries, including Venezuela, Brazil, Chile, Mexico and Argentina. It is in the process of implementing a number of activities in various sectors, such as energy, tourism, industrial development and health. It is also negotiating similar agreements with the countries of the Maghreb region in North Africa and the Government of Nigeria.

National policies, institutional framework and support for TCDC

23. The overwhelming majority of developing countries have expressed support for increasing the use of TCDC modality. However, it is not yet established from the information received how many countries have adopted clearly stated national policies to ensure the increased use of the TCDC modality.

24. Almost all the responding countries have national TCDC focal points in place. Kyrgyzstan, the Sudan, Senegal and Togo have recently appointed new national focal points. The Philippines has created a technical cooperation council that will facilitate policy coordination. It has been pointed out, however, that the effectiveness of the national focal points continues to be limited due to a number of factors, including the absence of a clear national policy on TCDC and a lack of authority and finance. The need to strengthen national focal points and coordination mechanism has been reiterated.

25. Although several countries indicated having increased allocations for TCDC activities, the inadequacy of finance for TCDC activities has frequently been cited as one of the major constraints to the increased use of the modality.

2. Organizations and agencies of the United Nations system (other than UNDP)

26. Most of the organizations and agencies that responded stated that they have increased their efforts for the promotion and use of TCDC modality in the implementation of technical cooperation activities by instituting policy changes and mobilizing resources for both promotional and operational activities.

Policies and measures on TCDC

27. Several organizations and agencies have extensively assessed their policies and activities and have taken specific measures to strengthen their policies for the application of TCDC; some of them have issued circulars, handbooks and guidelines on the application of TCDC, including the Food and Agriculture Organization of the United Nations (FAO) in 1992, the United Nations Population Fund (UNFPA) in 1993 and the World Health Organization (WHO) in 1994.

28. The Department for Development Support and Management Services of the United Nations Secretariat sponsored the Thirteenth Biennial Meeting of National Recruitment Services, held in Cairo in March-April 1993, which focused on capacity-building activities and on the role of the Department in that regard. The meeting adopted the Cairo Plan of Action, which was further endorsed in June 1993 by the Governing Council of the United Nations Development Programme (UNDP) in its decision 93/30. The Plan strongly recommended that capacity-building activities include preparatory needs assessments missions, training seminars and workshops, advisory missions by specialists on project personnel systems or other facets to the management and fellowship administration. As a follow-up, an interregional capacity-building workshop was held in Beijing in May 1993, with participants from Asia and the Pacific developing countries, focusing on programme management and human resources development, with an emphasis on the promotion of TCDC.

29. FAO reported that measures for promoting the use of TCDC are discussed during two-week orientation seminars on its programmes and procedures held twice a year for national project directors. Participants during the last two years have included 110 national project directors, 11 government officials and 36 country-level programme staff members of FAO and UNDP. The TCDC modality is also being incorporated in seminars on project formulation, implementation, evaluation and monitoring in field offices. Eighty participants attended presentations on TCDC in regional seminars held in Kuala Lumpur in 1992 and in Cairo in 1993.

30. After a comprehensive review, the International Labour Organization (ILO) is in the process of strengthening its field structure with subregional multidisciplinary technical advisory teams (MDTs) who are expected to increase their interaction with local institutions and make greater use of local experience and expertise.

31. WHO has established and/or strengthened focal points for TCDC in the various regions and at headquarters. An approach designed to integrate TCDC more fully into the health-for-all activities of developing countries, supported by WHO, was reviewed at a joint UNDP/WHO interregional consultation in February 1993.

32. The Universal Postal Union (UPU) reported that its regional advisers are promoting TCDC and that its Executive Council approved a draft resolution on TCDC in February 1994. That resolution will be submitted to the Twenty-first UPU Congress for approval in August/September 1994.

33. The World Intellectual Property Organization (WIPO) reported that it has been supportive of the objectives of resolution 1992/41 through its permanent programmes for development cooperation for industrial property and copyright. The World Food Programme (WFP) is presently reviewing its policies, objectives and strategies and is in the process of presenting a policy paper to its governing body, the Committee on Food Aid Policies and Programmes, at its May 1994 session. The paper proposes that WFP seek to maximize the benefits to developing countries in all of its work and outlines specific mechanisms for doing so. In addition, WFP has increased the delegated authority of its country directors, which will allow better opportunities for recruiting local experts, making local purchases and increasing cooperation with local non-governmental organizations.

34. TCDC focal points are already in place within most agencies and they conduct consultations and coordinate efforts through focal points meetings of the United Nations development system, such as those held through the auspices of the Special Unit for TCDC in New York and Geneva in 1992 and 1993.

Promotional/operational activities

35. The responding organizations and agencies reported supporting a number of activities since the adoption of Council resolution 1992/41.

36. For the period January 1993 to January 1994, the Economic and Social Commission for Asia and the Pacific (ESCAP) reported implementing more than 80 promotional and 33 operational activities financed from extrabudgetary resources. The promotional activities supported the participation of developing countries of the region in seminars, study visits, training workshops, and bilateral and multilateral exchanges of experience. The operational activities aimed at enhancing the human resources of the participating countries in a wide range of areas, including agriculture, environment, human settlements, natural resources, population, rural development, social development, statistics, telecommunications, trade promotion and women in development. Some of those activities have already been reported upon by the countries themselves.

37. WHO stated that it was actively promoting TCDC in the health sector. Examples of its activities include the provision of fellowships for African trainees/trainers, the completion of an intercountry evaluation by the Expanded Programme on Immunization and Maternal and Child Health, and the organization of an International Conference on Community Health in Africa in Brazzaville in September 1992. In addition, about US$ 2.7 million (or 1.7 per cent of the

1992-1993 regular budget) were allocated for support to a number of technical cooperation activities in the Americas. In addition, the Governments of Belize, Guatemala and Mexico have, over the years, undertaken joint immunization activities, epidemiological surveillance, antimalarial action and cholera control. UNFPA recently approved a project to support the sharing of family planning experience between Indonesia and other countries of Asia and Sub-Saharan Africa. The International Research and Training Institute for the Advancement of Women (INSTRAW) indicated that its activities emphasize training primarily in developing countries and during the 1992-1993 period about 600 participants world wide were trained in the areas of improving statistics and data on women.

38. Under its Voluntary Cooperation Programme (VCP), the World Meteorological Organization (WMO) approved $70,000 for 1993 for expert missions from developing countries and over $400,000 for equipment and services from them.

39. The United Nations Industrial Development Organization (UNIDO) reported that it continues to mobilize resources to increase support to ECDC/TCDC activities, in particular through the Industrial Development Fund (IDF) and other extrabudgetary resources. It also reported increasing its use of the Regular Programme of Technical Cooperation, including the technical cooperation component of the Second Industrial Development Decade in Africa (IDDA) for ECDC/TCDC activities. In 1993, it secured approval for two significant projects under multi-donor financing for leather and footwear industry in Africa and tannery wastes treatment in eight countries in South-East Asia. About 30 promotional activities were also implemented by UNIDO, for example, between India and East African countries in agro-based industry and small-scale industry, and between China and Viet Nam in the machine-tool industry. A workshop in telecommunications software and technologies, held in China, resulted in the signing of 40 working agreements involving joint venture, expert services, the transfer of technology, equipment delivery and training. Similarly, 30 cooperation agreements were concluded in a meeting held in Guatemala on the industrial processing of medicinal plants.

40. The United Nations Conference on Trade and Development (UNCTAD) reported that it has mobilized resources from developing countries for use in other developing countries, such as the G-24 Trust Fund for studies on monetary and financial issues. In addition, it supported the organization of an investment round table in Uzbekistan in March 1994, as a result of which two Asian transnational corporations from India and Pakistan undertake feasibility studies and the Governments of the two countries have committed themselves to establishing technical cooperation and training programmes with Uzbekistan.

41. The Department for Development Support and Management Services of the United Nations Secretariat reported supporting TCDC activities under the United Nations regular programme funding, primarily through workshops, seminars, and training programmes. For example, activities mounted in 1993 included workshops and training in the following areas: mining and environment in collaboration with the United Nations Environment Programme (UNEP) (Zambia, September-October); environment management in mining for the Southern African Development Community (SADC) countries, in cooperation with Germany (Namibia, September); guidelines for the development of small- and medium-scale mining

(Zimbabwe, February); computer applications for groundwater assessment and management (Thailand, January), in cooperation with ESCAP; the strengthening of foreign ministries in transition and TCDC Consultations (Malta, June), in cooperation with UNDP; the macro-economic impact of public investment in the Senegal River Valley (Mali, November); public expenditures policies (Honduras, December); and micro-economic policy reform during transition (Mongolia, September), which was jointly sponsored with the UNDP Special Unit for TCDC. Also in collaboration with the Special Unit for TCDC, the Department issued in 1993 "Guidelines for island developing countries in planning for sustainable development", based on joint workshops organized in 1992 on the same topic. A similar cooperative activity was the assessment of the capacities and needs of foreign ministries in transition of the Commonwealth of Independent States (CIS) countries, the Baltic States and the Balkan States, an assessment which served as the basis for the 1993 Workshop on the Strengthening of Foreign Ministries in Transition and TCDC Consultations, held in Malta. There has been an increasingly close collaboration and complementarity of efforts and resources between the Special Unit for TCDC and the Department. In addition, the Department participated in the various regional TCDC national focal point meetings. The Department also reported that the TCDC modality has been used in the implementation of a number of national and regional projects that it had executed.

42. WIPO has indicated supporting TCDC through its regional and subregional meetings, which have often led to cooperative arrangements, such as the standardization of administrative procedures, the establishment of commonly accessible databases and joint programming exercises among developing countries.

43. WFP reported that it has been collaborating with local non-governmental organizations for project identification, beneficiary targeting and implementation. During 1993, it worked with about 300 non-governmental organizations for both emergency and development projects. Under its training programme, in 1993 a total of nearly 6,000 counterpart staff participated in such programmes as project identification and planning, food management, emergency procedures and management, project management, and financial and office management. With regard to procurement, WFP stated that in 1993, 61 per cent of the food it bought (for a total of $262 million) came from developing countries and $136 million was spent on non-food items and services in those countries.

44. The transfer to national programmes of some of the research and training initiatives that are currently the responsibility of international centres is one of the innovative approaches to TCDC that the International Fund for Agricultural Development (IFAD) has adopted in order to strengthen the capabilities of national agricultural research systems (NARS) IFAD is specifically promoting a collaborative initiative through the International Centre for Maize and Wheat Improvement (CIMMYT) (Grant No. 201), involving the decentralization of some of the CIMMYT research and training responsibilities, which would devolve to the National Agricultural Technology Institute (INTA) of Argentina. A similar effort is being pursued under IFAD TAG 267-IRRI (International Rice Research Institute), involving the Indian Council of Agricultural Research (ICAR) in rice farming systems research. IFAD is planning to further support such initiatives, extending the concept to other strong NARS

(in Brazil for maize, in Egypt for semi-chemicals research on desert locust control; and in Malaysia and Indonesia for research on bamboo and rattan, tissue culture research etc.).

45. The United Nations Centre for Human Settlements (Habitat) has been utilizing TCDC through its regional, sub-regional and interregional activities. A notable example is its Urban Management Programme, which has set up a coordinated programme of capacity-building and exchange of skills of regional networks and communities and institutions. The programme has a decentralized structure, with offices in Quito (Latin America and the Caribbean), Accra (Africa), Cairo (Arab States) and Kuala Lumpur (Asia and the Pacific) that became fully operational in 1993. In addition, Habitat has developed long-term attachments of national personnel among Caribbean countries and has supported study tours among developing countries.

46. The International Telecommunication Union (ITU) reported that it has continued to promote TCDC while putting greater emphasis on its application in projects and project-related activities. Specifically, in 1993 it implemented some 25 activities, including a training programme on digital technology between Senegal and Burkina Faso; the improvement of computerized telephone billing systems between Malaysia and Pakistan; and a manpower planning workshop (MANPLAN) in El Salvador and Bolivia.

Utilization of national expertise/consultants

47. Increased use of capacities of and consultants from developing countries has been reported by many agencies.

48. ESCAP indicated that for 1993, out of a total of 425 consulting services, 226 consultants and 41 contractors were from developing countries, representing 62 per cent of the total. Several institutions from developing countries, including China, India, Indonesia, Malaysia, Pakistan, the Philippines, the Republic of Korea, Singapore, Thailand, Egypt and Sri Lanka, have been utilized to provide training for other developing country participants under the auspices of TCDC.

49. UNIDO indicated that more than 500 experts were recruited from Egypt, Hungary, India, Poland, Romania and the Syrian Arab Republic to provide technical services to Egypt, Libya and Nigeria in the areas of cement and petrochemicals. The World Bank stated that consulting services from developing countries other than the borrowing countries amounted to $66 million and $81 million for the financial years 1991 and 1992 respectively. When consulting services from borrowing countries are included, those numbers increase to $268 and $293 respectively. UNFPA has established a national consultants' roster database.

50. UNCTAD reported that it has recruited a significant number of experts/consultants from developing countries and has also utilized the services of developing country institutions in such areas as writing, programming, training and installing UNCTAD software in other developing countries. WFP stated that its utilization of local expertise for project identification, appraisal or technical review is increasing. For 1993, the percentage of

persons recruited from developing countries was 25 and for 1994 the figure to date is 40 per cent. Furthermore it is recruiting more experts locally or from neighbouring countries, including subcontracting to local universities and institutions. WIPO reported that during 1992 and 1993, 165 nationals of 33 developing countries, including 28 from four regional organizations, were used as experts for missions to other developing countries or as speakers in WIPO seminars or meetings.

51. Habitat, as part of its regular programme and its operational activities, has developed a modality of horizontal exchange of experiences among project personnel in general and among national experts in particular. For instance, assistance to Nicaragua from a national expert from Bolivia in setting up an urban cadastral system has led, in 1993, to a major financing, as cost-sharing to UNDP IPF, from the Government of Sweden.

52. Regarding training, the Department for Development Support and Management Services of the United Nations Secretariat has been placing over 50 per cent of its fellowships in institutions of developing countries, as its predecessors have done in previous years.

3. United Nations Development Programme

53. The Special Unit for TCDC has been vigorously encouraging the promotion and application of TCDC in the implementation of technical cooperation activities. Due to the considerable promotional work that has been done by the Special Unit for TCDC, with cooperation of the regional bureaux, there is widespread awareness of Council resolution 1992/41, as well as appreciation of its implications.

54. Following the adoption of Council resolution 1992/41, the text was forwarded to all the developing countries and to the organizations and agencies of the United Nations system with a letter from the Administrator of UNDP outlining the implications of the resolution and urging its implementation.

55. The Administrator followed up the initial distribution of the text of the resolution by preparing and disseminating throughout the developing countries and the development system, a special booklet entitled "Major decisions on TCDC in 1992-1993", in which the need for concerted efforts to implement the resolution was underscored.

56. The promotional work of the Special Unit during the last two years has covered a broad spectrum, including the dissemination of information, a greatly increased volume of training and sensitization on TCDC, and continued publication of Cooperation South magazine. In addition, a complete restructuring of the TCDC-INRES (Information Referral System) has been carried out, including the updating of data on more than 90 per cent of the 4,400 registered institutions in INRES and the creation and release of new, easier to use versions of the INRES software suitable for wide distribution throughout the developing countries and the development system.

57. The promotional campaign continued with the organization of a series of regional and national meetings for the national focal points. The regional meetings were held for the Arab States in Syria (August 1992), for Africa in Ethiopia (February 1993), for East European and CIS countries in Turkey (July 1993) and for Asia and the Pacific in Sri Lanka (April 1994). The meetings aimed at (a) bringing together the focal points to exchange experiences on the promotion of TCDC at the national level; (b) strengthening their functions; and (c) briefing them on developments, in particular Council resolution 1992/41 and the technical cooperation for developing countries strategy for the 1990s.

58. During the reporting period, a number of workshops and capacities- and needs-matching activities were completed, in such areas as medicinal plants, the small and medium enterprise "SPARK" programme of China, economic reform, environment, poverty alleviation, and resource mobilization through aid coordination and management. With the support of the Special Unit, three countries - Pakistan, Uganda and Nigeria - have completed capacities - and needs-matching exercises in the important sectors of civil aviation; industrial services and institutions for the private sector; and agriculture, science and technology.

II. CONCLUSIONS AND RECOMMENDATIONS

59. The information contained in the present report is an interim assessment of actions taken by Governments and the organizations and agencies of the United Nations development system during the last one and a half years. A comprehensive report to the Economic and Social Council at its substantive session of 1996 will provide a more detailed analysis of the actions taken by all parties, since by that time four years will have elapsed since the adoption of Council resolution 1992/41.

60. A recommendation that has again emerged from the current assessment is the need to adopt clear national policies on the wide application of TCDC and the importance of strengthening TCDC focal points. Developing countries may find it useful to ensure that their national policies state clearly that first consideration be given to the use of the TCDC modality in the implementation of their programmes and projects; they may also find it useful to censure that their national TCDC focal points are strengthened.

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COORDINATION OF THE POLICIES AND ACTIVITIES OF THE SPECIALIZED AGENCIES AND OTHER BODIES OF THE UNITED NATIONS SYSTEM RELATED TO THE FOLLOWING THEME: SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

Division of labour and coordination within the United Nations system in the field of science and technology

Report of the Secretary-General

SUMMARY

The present report has been prepared with the help of contributions from 26 United Nations organizations and agencies and other international organizations. Section I reviews the mandates of the organs, organizations and bodies of the United Nations system and their related programmes and activities (paras. 13-32).

Section II reviews existing coordination mechanisms at both the intergovernmental and inter-agency levels, as well as the implications for coordination of the recent restructuring within the United Nations system (paras. 33-65). At the same time, existing areas of weakness, duplication and overlap are identified.

Section III discusses the coordination arrangements in effect between the United Nations system and other relevant intergovernmental institutions and private organizations involved in science and technology activities, particularly private foundations (paras. 66-69). Major intergovernmental and private organizations involved in science and technology outside the United Nations system were contacted for their views.

* E/1994/100.

Section IV presents concrete proposals for improving inter-agency coordination, interaction and collaborative arrangements among the intergovernmental bodies, as well as among organizations and agencies of the United Nations system (paras. 70-110).

ABBREVIATIONS

ACC	Administrative Committee on Coordination
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
IAEA	International Atomic Energy Agency
IACSD	Inter-agency Committee on Sustainable Development
ICAO	International Civil Aviation Organization
ICSU	International Council of Scientific Unions
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
IMO	International Maritime Organization
INFOTERRA	International Environment Information System (UNEP)
IOC	Intergovernmental Oceanographic Commission
ITU	International Telecommunication Union
JCGP	Joint Consultative Group on Policy
TCDC	Technical cooperation for developing countries
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WHO	World Health Organization
WMO	World Meteorological Organization
WFP	World Food Programme

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INTRODUCTION

1. At the recommendation of the Commission on Science and Technology for Development and the Commission on Sustainable Development, the Economic and Social Council, in its decision 1994/202 reached at its organizational session in February 1994, selected the theme "Science and technology for development" for consideration at the coordination segment of the substantive session of the Council in July 1994. It requested the Secretary-General to prepare, for that purpose, a report containing an analysis and action-oriented proposals for improving the coordination mechanisms of the organs, programmes and specialized agencies, including the World Bank, that are involved in the science and technology activities of the United Nations system. The present report has been prepared in response to that request.

2. The present report takes into account the implications of the recent reforms in the Secretariat as well as ways and means of improving the coordination of the United Nations system with other relevant intergovernmental institutions and private organizations involved in science and technology activities. The Economic and Social Council also requested, in its resolution 1993/69, that the report update the section of the report of the Secretary-General on the contribution of technology to industrialization and regional and global integration (E/CN.16/1993/2) that concerned the problems and policy measures related to promoting effective linkages between research and development and the productive sector, with particular attention to the new developments and approach being effected in support of Agenda 21 1/ and with an indication of any major new opportunities open for international cooperation in that area. As a follow-up, the relevant organs, organizations and bodies of the United Nations system were requested to provide specific proposals to update that section. However, the information received up to the time of publication was not sufficient to warrant inclusion in the present report.

3. The present report also provides the information called for in Economic and Social Council decision 1993/322, in which the Council requested the Secretary-General to provide, a brief report to the General Assembly in early 1994, listing the full range of intergovernmental and inter-agency committees within the United Nations system that currently address technology transfer and noting the mechanisms for coordination among them.

4. The Commission on Science and Technology for Development, at its first session, in April 1993, considered the issue of coordination and cooperation in science and technology within the United Nations system. The Commission expressed the view that the objective of system-wide coordination in science and technology should be to create synergies.

5. The Commission on Sustainable Development, at its first session, in June 1993, emphasized the need for effective interaction and collaborative arrangements with intergovernmental bodies that are of special relevance to the work of the Commission in relation to promoting and facilitating the transfer of environmentally sound technologies, cooperation and capacity-building. For that purpose, the Commission invited the Economic and Social Council to consider the intergovernmental machinery related to science and technology in the

coordination segment of its substantive session of 1994 with a view to clarifying the distribution of labour and cooperation mechanisms.

6. The General Assembly, in its resolution 48/179, stressed the urgent need to strengthen the vital role of the United Nations in the field of science and technology, particularly through better coordination, including in the field of technology assessment, monitoring and forecasting. In particular, it called upon the Commission on Science and Technology for Development and the Commission on Sustainable Development to interact effectively, through the Economic and Social Council, in carrying out their respective mandates.

7. Moreover, the Joint Meeting of the Committee for Programme and Coordination and the Administrative Committee on Coordination, at its 27th series, on 27 October 1993, recognized a crucial area for consideration of the Economic and Social Council to be the coordination of United Nations activities in the area of the transfer of environmentally sound technologies, cooperation and capacity-building. It was considered essential to ensure effective interaction and collaborative arrangements between a number of intergovernmental bodies active in the area on the basis of a clear division of labour and responsibilities. In that regard, the Joint Meeting also recommended that the Economic and Social Council address the theme of science and technology for development at its substantive session of 1994.

8. The General Assembly, in the annex to resolution 45/264 of 13 May 1991, stated that recommendations that resulted from the discussions at the Economic and Social Council, at its coordination segment, should be submitted to the General Assembly and forwarded, as appropriate, to the governing bodies of the specialized agencies, organs, organizations and bodies of the United Nations system as well as to the Committee for Programme and Coordination and the Administrative Committee on Coordination.

9. Three organizational levels of coordination are discussed in the present report, as described below.

Coordination at the intergovernmental level

10. There are many areas of common interest among different intergovernmental bodies, according to their respective mandates. Any lack of coordination among them may be due more to logistical difficulties (the venue and timing of sessions etc.), than to any lack of potential interest. The Economic and Social Council, as the central body for intergovernmental coordination at the policy-making level, holds the key to improved coordination. At the same time, however, conscious efforts are needed on the part of member States, the bureaux of the various intergovernmental bodies and their secretariats for enhanced coordination with other governing and legislative bodies of relevance within the United Nations system.

Inter-agency coordination

11. The recent restructuring of the economic and social sectors and the advent of Agenda 21 has had a significant impact on inter-agency coordination, particularly coordination of a formal nature. In terms of inter-agency

coordination mechanisms, science and technology is now more closely associated with sustainable development through IACSD and with operational activities through CCPOQ, bringing about a more promising scope for cooperation.

Coordination with other relevant bodies outside the United Nations system

12. The third level of coordination has been largely based on the recognition of mutual benefits. Some arrangements for cooperation and networking exist in specific sectors. Future improvements in that type of coordination could be based on increasing information exchange and opening relevant forums that are intended for diverse audiences but remain focused on specific topics.

I. REVIEW OF THE MANDATES AND PROGRAMMES OF UNITED NATIONS ORGANS, ORGANIZATIONS AND BODIES IN SCIENCE AND TECHNOLOGY

A. Mandates

13. Due to the general way in which mandates are stated, (see annex II), it is difficult in practice to judge to what degree a particular organ or organization is involved in science and technology by simply reviewing its legislative mandate. Four bodies of the United Nations system have mandates that are more or less specifically focused on science and technology: the Commission on Science and Technology for Development, the Ad Hoc Working Group on the Relationship between Investment and Technology Transfer (UNCTAD), the African Regional Conference on Science and Technology (ECA) and the Senior Advisers to ECE Governments on Science and Technology. There are also a number of commissions that address specific scientific and technical fields, such as the Intergovernmental Oceanographic Commission (IOC) for which UNESCO provides the secretariat. The IOC mandate includes the improvement of coastal marine research and management, global ocean observing and monitoring, and the enhancement of marine science capabilities of developing countries.

14. There are a variety of other organs and organizations whose mandates include but are not limited to science and technology, such as the Commission on Sustainable Development, the Commission on Transnational Corporations, UNIDO's Industrial Development Board, the UNDP Governing Council, and the UNEP Governing Council. There are also organizations and agencies whose mandates cut across several different sectors of science and technology, such as UNESCO. Agencies such as FAO, WHO, ITU, WMO, ICAO and IAEA address science and technology from a particular sectoral focus.

15. Among the regional commissions, ECA and ECE have specific subsidiary bodies devoted to science and technology that report to their respective commissions. In the case of ESCAP, ECLAC and ESCWA, the subject of science and technology is examined by the Commissions' governing bodies.

16. The World Bank, including IBRD and IDA, aims to reduce poverty in developing member countries through sustainable economic development. Science and technology is but one of the many factors that are brought to bear on that

objective, for which the Bank provides financial, technical and other assistance to its developing member countries.

17. It should be mentioned that the Ad Hoc Working Group on the Interrelationship between Investment and Technology Transfer, under the Trade and Development Board of UNCTAD, has a set of very specific mandates and is expected to complete its work in 1994. The terms of reference of the Working Group state that it should complement the work of other international bodies while seeking to avoid duplication. In that regard, it is important to highlight as well the UNIDO mandates in the field of technology investment, which have recently been strengthened.

18. ILO, UNIDO and UNU, particularly INTECH, are engaged in studies on the implications of new technologies and information dissemination, based on their respective mandates. UNU is also concerned with promoting basic sciences and environmental sciences through its university network. UNCTAD and ILO have mandates in the area of technology planning and policy formulation. In these cases, the approaches taken or the emphasis given are usually different depending on the agency's basic mandate.

B. Programmes

19. Science and technology activities include expenditures on research facilities, training, the preparation of assessments and forecasts, and information dissemination. They are closely linked to technology transfer activities in producing enterprises and to higher education activities. The involvement of the United Nations system is limited to a few of those areas.

20. Annex III presents a breakdown of science and technology-related programmes of the organizations and agencies of the United Nations system. To facilitate comparison, the information in annex III is arranged according to the following seven categories: capacity-building, including education and training; scientific and technical information collection and dissemination; study and promotion of new technologies; scientific and technical policy formulation and development; research and development; technology assessment; and technology transfer.

21. The place of science and technology within the activities of the United Nations family of organizations has to be seen in the light of programme expenditures. From that viewpoint, overall expenditure on science and technology, as a generic field, is relatively small. Technical cooperation expenditures on science and technology of the United Nations system are set out in annex I. In 1991, for example, agency expenditures on science and technology from all non-UNDP sources totalled some $36 million. That figure represented only about 3 per cent of all agency programme expenditures. Science and technology expenditures funded from UNDP administered funds and central resources totalled about $52 million, representing roughly 4 per cent of such resources.

22. The operational activities of the United Nations system in the area of capacity-building focus on human resources development, particularly promoting national capacity in developing countries; improving teaching in the basic and engineering sciences; promoting academic exchanges and postgraduate training; building research capacity; improving linkages between labour market skills requirements and training programmes; and supporting joint ventures to improve institutional capacity. There has also been an emphasis on participatory approaches involving users and beneficiaries of science and technology.

23. In the area of information collection and dissemination, the United Nations system has undertaken activities to strengthen such documentation services and cooperative information networks as INFOTERRA with the provision of referral services to users and on-line access to data banks for environmental information. The United Nations system promotes and develops regional and subregional and national information capabilities to facilitate access to modern production technologies. It seeks to improve national statistical capabilities, particularly those related to science and technology, and to update and harmonize international classifications and standards. In areas where specialized or global approaches are needed, the relevant agencies facilitate the availability of information through their monitoring and warning systems, as well as through established databases and information systems.

24. The United Nations system has developed considerable thematic commonality in the field of new and emerging technologies (see A/CN.11/1991/5). Action programmes in that area include efforts to promote new energy technologies to meet the needs of the urban and rural poor. There are programmes to promote both awareness of new technologies in developing countries and the industrial application of those technologies. Also, new cleaner production technologies to promote environmental protection are becoming an increasingly important issue for several agencies. Studies on the legal, economic and social implications of new technologies are also important themes.

25. Several of the agencies and their related governing bodies provide policy advice and recommendations to developing countries on the development of science and technology programmes and national policies. Studies have been carried out on the effects of various policy options on the evolution of science and technology policies and capabilities within specific countries. Assistance has been given to Governments in formulating science- and technology-related policies and strategies by the regional commissions and specialized agencies.

26. The research and development programmes of the specialized agencies focus on topics of a global nature, which often require interdisciplinary approaches. For example, the WMO World Climate Programme seeks to improve understanding of climate processes through research and the provision of reliable climate data. Work is also being done on the impact of agrarian structures on employment and environment. Regional and field activities focus on strengthening agricultural research and research institutions. Studies are being done on new methods and standards to protect against ionizing radiation.

27. There is a limited amount of work in the area of technology assessment, with the main focus directed to determining the impact of new and emerging technologies on development. Much of the work aims to make decision makers in

developing countries aware of the implications of new and emerging technological changes and to provide Governments with alternative strategies and options for development.

28. The efforts of the United Nations system are increasingly concentrated on the transfer of environmentally sound technologies through the provision of technical assistance aimed at the dissemination of information, capacity-building and the promotion of standards. There has also been a trend away from technology hardware, as narrowly defined, to transferring technology software, such as the related technical and management skills required to use technologies in a more efficient manner. A good deal of emphasis is also being given to cleaner production methods and technologies.

29. The overall thrust in the seven categories described above indicates that the activities carried out by different agencies are more complementary than overlapping, in the sense that each agency tends to focus its activities on its own area of specialization. For example, although all agencies have capacity-building programmes, such programmes address different fields, such as health, agriculture and hydrology. Some organizations are involved mainly in generic issues related to science and technology planning, while the sectoral organizations focus their science and technology work on the areas covered in their specialized mandates. The regional organizations, for their part, generally focus on regional cooperation in science and technology.

30. Almost all agencies have adjusted their programmes and activities to reflect the sustainable development dimensions spelled out in Agenda 21. Such trends reflect the common view of the international community today that it is no longer possible to promote development without considering its environmental consequences. The multiple interests of different agencies in the common themes of Agenda 21 are being coordinated through IACSD by designating one lead agency per theme/cluster of themes as task manager.

31. The chapters of Agenda 21 that are related to science and technology are chapters 34 (transfer of environmentally sound technology, cooperation and capacity-building), 35 (science for sustainable development) and 37 (national mechanisms and international cooperation for capacity-building in developing countries). As those chapters are cross-sectoral in nature, they are often considered in the context of specific sectoral chapters of concern to respective agencies.

32. In the implementation of comprehensive programmes such as Agenda 21, more interdisciplinary approaches are called for requiring greater inter-agency collaboration and consultations. In the case of Agenda 21, IACSD, through its task manager arrangements, is addressing with increasing effectiveness the need for more interdisciplinary and inter-agency cooperation.

II. EXISTING ARRANGEMENTS FOR COORDINATION WITHIN THE UNITED NATIONS SYSTEM

A. Coordination of legislative and policy-making bodies

33. The main routes open to the United Nations system for contributing to policy-making in science and technology have been through contributions to debate in intergovernmental forums such as the Commission on Science and Technology for Development, the African Regional Conference on Science and Technology of ECA, the Senior Advisers to ECE Governments on Science and Technology, and more recently the Commission on Sustainable Development. Science and technology policy has also been addressed by individual agency governing bodies and boards, such as those of UNDP, UNEP, UNESCO, IMO, WMO, UNU and others.

34. There have been few formal attempts to carry out structured assessments of the impact of and follow-up to discussions of science and technology policy in the intergovernmental forums of the United Nations system. Little empirical evidence exists for establishing the extent to which development of science and technology policy and programmes in developing countries has been significantly influenced by the deliberative organs of the United Nations system. It is symptomatic of the difficulties faced that, in many countries, it is exceedingly difficult to obtain copies of the documentation used as the basis of debate, so that the work of those bodies, regardless of its quality, remains in many cases unknown to any except those directly involved in the meetings. It may also in part be a reflection of the limited capacities of many countries to obtain and assimilate the policy decisions of some intergovernmental bodies.

35. For intergovernmental forums to be influential in policy development at the national level, new mechanisms of information dissemination may be needed, with Member States themselves assuming a larger burden of responsibility.

36. The difficulty of coordination among the legislative bodies of different organizations and agencies of the United Nations system concerned with science and technology lies in the fact that no direct coordination mechanism or regular system of contacts or information exchange exists for that purpose.

37. As established in the Vienna Programme of Action on Science and Technology for Development, the General Assembly, assisted by the Economic and Social Council, the Committee for Programme and Coordination and the Commission on Science and Technology for Development formulates policy guidelines for the harmonization of policies of the organs, organizations and bodies of the United Nations system with regard to scientific and technological activities (see General Assembly resolution 34/218, sect. II, para. 5). It is up to the relevant governing bodies of the respective agencies to follow such guidelines or to make efforts to harmonize their policies in line with those of other agencies. The Member States themselves, through their delegations, could serve as a linkage between those bodies to ensure a certain consistency and harmonized approach in science and technology policy-making.

38. Also important, given the present lack of a coordination mechanism among legislative bodies, are the actual and potential contributions by the

specialized agencies to the deliberations of the Economic and Social Council, the Commission on Sustainable Development and the Commission on Science and Technology for Development. IACSD could increasingly serve as a channel for such contributions.

39. During the discussion on restructuring at the substantive session of 1992 of the Economic and Social Council, a number of Member States stressed the need to further consolidate and harmonize the intergovernmental machinery in order to address problems in a more integrated fashion and to facilitate the decision-making process.

40. The potential role of the regional commissions in the field of science and technology also does not seem to have been fully explored. In order to avoid duplication and to optimize the resources and geographical advantages of the regional commissions, global organs and specialized agencies need to systematically involve the regional commissions while undertaking activities at the level of the individual Member States in their respective regions. A cooperative activity could be, for instance, assistance in the formulation and development of coordinated policies at the national or regional levels, as a basis for practical action in promoting economic and technological development in the regions concerned, and with the emphasis on a TCDC approach.

B. Inter-agency coordination

41. For nearly a decade, until its abolition in 1993, the ACC Task Force on Science and Technology for Development was the principal forum for inter-agency coordination in science and technology.

42. Other inter-organizational coordination arrangements, not under ACC, are still in existence, and include the following:

(a) Inter-Secretariat Committee on Scientific Programmes relating to Oceanography (ICSPRO);

(b) United Nations Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP);

(c) WHO/ILO/UNEP Inter-Secretariat Coordinating Committee of the International Programme on Chemical Safety (IPCS);

(d) UNIDO/ILO/UNESCO Working Group on the Training of Industrial Manpower;

(e) UNIDO/WHO Working Group on Production of Pharmaceutical and Bio-Medical Equipment;

(f) UNIDO/UNEP/WHO/FAO Working Group on bio-safety;

(g) WMO/UNEP Intergovernmental Panel on climate change (IPCC).

43. The above-mentioned expert-level inter-agency working groups created for specific purposes have proven to be quite effective.

44. There are also collaborative programmes in the field of science and technology. Examples of such joint programmes are: the World Climate Research Programme sponsored by WMO, FAO, UNEP, IOC of UNESCO and ICSU; the Global Climate Observing System co-sponsored by WMO, UNEP, IOC and ICSU; and the WMO/IAEA programme on Emergency Response.

45. A number of inter-agency missions, undertaken by the former ACC Task Force on Science and Technology for Development in several countries to assess the impact of the United Nations system in endogenous capacity-building in science and technology of the countries concerned, concluded (see A/CN.11/1991/4) that:

(a) The perception that most United Nations activities at the country level overlap and that there is considerable scope for streamlining and integrating is exaggerated. With few exceptions, most activities are specialized and respond to a specific need, as articulated in the project objectives, and cannot therefore be combined;

(b) The resources allocated to science and technology in the field are generally diffused and thus incapable of making a lasting contribution. The United Nations system should extend its relatively meagre but catalytic resources for science and technology for development over a longer period than the traditional five years, on a small number of programmes.

46. The major difficulties and drawbacks in inter-agency coordination in the field of science and technology observed in the past include:

(a) A general fragmentation of efforts within the United Nations system;

(b) An unnecessary expansion of the involvement of United Nations funding agencies in operational activities and the consequent marginalization of the role of the specialized agencies;

(c) Uncooperative execution of the United Nations agencies' programmes at national and regional levels;

(d) The absence of a joint United Nations information system in the field of science and technology;

(e) A lack of political and financial commitment on the part of Member States;

(f) Weak pre-project analytical work.

47. Those problems led the former Task Force to advocate the need for joint planning and programming, including budgetary coordination for specific joint activities, which did not however materialize within the lifetime of the Task Force. Coordination of medium-term plans and programmes within the United Nations system as a whole has been difficult to achieve, due to the varying planning cycles and programming/approval procedures of different agencies. For example, a consolidated major programme on science and technology within the United Nations Secretariat for the 1984-1989 Medium-term Plan, including UNCTAD and the regional commissions, was never fully realized.

48. Moreover, prima facie duplication and overlap has to be examined in detail. At times, seemingly duplicating activities are in fact being tackled from different perspectives and starting from a different technical baseline. There should be a genuine concern for multidisciplinary and intersectoral dialogue. The overall objective of inter-agency coordination should be to enhance the effectiveness of United Nations activities while optimizing the use of resources to create synergies between the different entities to cover fields that may have several different dimensions.

49. There is a view in the system that when it comes to coordination, as long as agencies have a clear incentive to act in the intended manner it is more practical to strengthen and improve the lines of contact that already exist between agencies, particularly through the Administrative Committee on Coordination and its subsidiary bodies, and thus create an "enabling environment" for inter-agency cooperation than to designate one nexus for overall coordination within the system.

50. However, some agencies hold the view that inter-agency coordination would be best served by a single focal point acting as a clearing-house for science and technology, with appropriate background competence and expertise and with the mandate to call ad hoc inter-agency meetings for specific purposes, as necessary.

51. Coordination and cooperation on a bilateral basis without any structured type of coordination are fairly common and seem to be both practical and effective. Agencies invite each other to events on subjects of common interest and consult each other on a daily basis at the working level for specific purposes. However, such bilateral arrangements sometimes require formal agreements at the outset between the two parties involved.

C. Coordination at the country level

52. Country-level coordination is considered by many to be the most difficult dimension of the coordination issue for several reasons. In the first instance, there may be a conceptual problem in treating science and technology as a generic field of activity when in fact it relates to a wide variety of sectoral endeavours. Science and technology are generally not ends in themselves, but rather a means of achieving other ends. Second, in many cases Governments themselves do not take a coordinated approach to science and technology as a generic issue. Rather, requests to the United Nations system come from various sectoral ministries, each of which have their own budgets, programmes and priorities which are not necessarily coordinated with those of other ministries that may be competing for the same limited resources. The United Nations system, which has agencies specialized along sectoral lines, to a large extent reflecting the structure of national Governments, has many of the same problems of coordination as the Governments that they seek to serve.

53. An existing inter-agency mechanism to coordinate field-level activities is the Joint Consultative Group on Policies (JCGP), a body made up of financing organs within the operational system of the United Nations system, established in 1981 with the membership of UNICEF, UNDP, UNFPA, WFP and IFAD. JCGP is meant

to address those sectors whose respective mandates overlap, with some emphasis on health, nutrition and family planning, as well as women in development, strategies for Africa and the harmonization of programming procedures. The General Assembly, in resolution 47/199, acknowledged the field-level coordinating role of JCGP in providing clear guidance to resident coordinators and in ensuring the necessary support both at the headquarters level and in the field.

54. In the same resolution, the General Assembly called for the strengthening of the resident coordinator system, whose aims include:

(a) Improving the efficiency and effectiveness of the United Nations system at the field level, through a fully coordinated multidisciplinary approach to the needs of recipient countries under the leadership of the resident coordinator, bearing in mind the complementarity of the system and the need for a division of labour within the respective spheres of competence of individual specialized agencies, programmes and funds;

(b) Establishing, in consultation with recipient Governments, a clearer division of responsibilities for the resident coordinator and individual funds, programmes and specialized agencies.

D. Implications of the recent reforms in the Secretariat

55. The recent restructuring of the economic and social sectors has been one of the most extensive in the history of the United Nations. In the case of science and technology, restructuring affected the intergovernmental machinery, the ACC inter-agency mechanism and the Secretariat itself.

56. At the intergovernmental level, the Intergovernmental Committee on Science and Technology for Development and its subsidiary, the Advisory Committee on Science and Technology for Development, were transformed into the 53-member Commission on Science and Technology for Development.

57. At the inter-agency level, the Task Force on Science and Technology for Development was abolished in early 1993 as part of the effort to restructure the ACC machinery. That decision was taken in order to coordinate relevant activities within the sectors into which they naturally fell (environment and sustainable development, oceans etc.) rather than maintain a discrete coordination mechanism for the cross-cutting issues of science and technology.

58. The coordinating functions of the former ACC Task Force on Science and Technology were absorbed partly by IACSD, with respect to the science and technology aspects of Agenda 21, and partly by CCPOQ, with respect to the linkages to the development process.

59. CCPOQ decided, at its second regular session in 1993, that the assessment of those implications would be based on reports by UNCTAD and the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat to CCPOQ on the operational dimensions of their substantive analyses and recommendations.

60. IACSD was initially set up on a two-tier system consisting of a core and non-core membership, but recent agreements in ACC have called for a full participation by all interested agencies. For developing collaborative programmes and reporting, IACSD has designated task managers to organize working parties on specific themes of the Commission on Sustainable Development in relation to the implementation of Agenda 21. The involvement of specific United Nations agencies in those matters is determined by (a) clear mandates plus current and planned activities in each area; (b) proven comparative advantage developed in specialized areas at national, regional and global levels; and (c) strong capacity to implement projects in the field. Further refinement and streamlining of such coordination arrangements are expected to take place within the context of IACSD, as more experience is gained by agencies in those areas.

61. A limited number of specialized ACC subcommittees that are broadly related to science and technology remained after the streamlining of the ACC subsidiary machinery, including:

(a) The ACC Subcommittee on Water Resources (the former Inter-secretariat Group for Water Resources), dealing with fresh water;

(b) Ad hoc inter-agency meetings on outer space activities.

62. In addition, IACSD endorsed the recommendation of the Inter-Agency Meeting on Ocean Affairs held at UNESCO headquarters in August 1993 to establish a new Subcommittee on Ocean and Coastal Areas under IACSD in order to meet the coordination needs broadly defined in chapter 17 of Agenda 21. The proposed secretariat for that new body is UNESCO/IOC. The secretariat arrangements will be reviewed after two years for a final decision.

63. The reorganization of the United Nations Secretariat, announced by the Secretary-General and implemented in stages (first stage on 5 March 1992; second stage on 1 July 1993) has had significant implications for the coordination of science and technology within the United Nations system.

64. Most of the functions of the former Centre for Science and Technology for Development, as well as the programme of the former Centre for Transnational Corporations, have been transferred to UNCTAD, while the coordination function, including the substantive coordination of inputs to the Commission on Science and Technology for Development, has been shifted to the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat. The transfer of the two formerly distinct organs to UNCTAD has increased recognition of the organic links and interrelationships between investment, technology and trade.

65. UNCTAD is now the secretariat of the Commission on Science and Technology for Development, as well as for the Commission on Transnational Corporations, which could facilitate coordination between those bodies in the future. The Department for Policy Coordination and Sustainable Development of the United Nations Secretariat has a responsibility for the substantive coordination of inputs to the Commission on Science and Technology for Development in principle, but the actual division of labour in relation to its substantive servicing is decided between UNCTAD and the Department on a pragmatic basis.

III. COORDINATION BETWEEN THE UNITED NATIONS SYSTEM AND OTHER RELEVANT INTERGOVERNMENTAL INSTITUTIONS AND PRIVATE ORGANIZATIONS

66. Each agency maintains special relationships with intergovernmental and non-governmental organizations as well as private organizations of relevance to their work. Interactions have taken the form of exchanges of publications and periodicals, invitations to each other's seminars and workshops or their sponsorship, joint undertakings of certain operational activities in the field, etc. Such interactions are sought by either party, depending on the subject being considered and the appropriateness of outside involvement.

67. Many of those organizations have also taken an active interest in the work of the intergovernmental bodies, such as the Commission on Science and Technology for Development and the Commission on Sustainable Development. The participation of non-governmental organizations at the first sessions of those two bodies in 1993 was quite impressive in terms of both substance and intensity. The nature and modality of coordination between the United Nations system and outside bodies could be discussed in the future sessions of those Commissions so as to develop sound policies and strategies in that regard.

68. A lack of coordination between the functions of global United Nations agencies concerned with science and technology and regional intergovernmental organizations in the same field may lead in some cases to overlap and duplication of activities at the regional level. The role of regional commissions as an intermediary in such cases should be examined.

69. Between regional commissions and relevant regional intergovernmental institutions, active collaboration is usually maintained. The latter assist in the relevant forums of the technical subsidiary organs of the regional commissions. The regional commissions in turn closely associate with the implementation of certain work programmes of relevant non-United Nations regional bodies and contribute, wherever possible, to the execution of their technical programmes.

IV. ACTION-ORIENTED PROPOSALS TO IMPROVE COORDINATION, INTERACTION AND COLLABORATIVE ARRANGEMENTS

70. The long-term aim of coordination should be to (a) improve the exchange of information among organs, organizations and bodies concerned with science and technology; (b) promote joint programming and common action; and (c) to the extent possible, effectively share available resources for common purposes. The objective is to enhance the planning, administrative and technical capacities of the organs and organizations concerned in delivering their services to end-users more efficiently. There should be financial, operational and substantive benefits of greater coordination.

71. Coordination of science and technology activities poses a particular problem since those activities are sometimes generic in nature and sometimes embedded in sectoral programmes. The appropriate focus of coordination, whether it should be in a central mechanism or in the mechanism dealing with sectoral

issues, is not always clear, a dilemma faced not just at the international level but also in national planning for science and technology. The discussion that follows recognizes that centralized coordination of all science and technology activities in the United Nations system is not feasible or even desirable and that the focus of coordination must be on specific areas that clearly involve more than one agency, programme or department.

72. Some possible areas where coordination may be needed, either because several agencies are involved in delivering comparable services or because a multisectoral approach is necessary for effective results, include:

(a) Improvement of science and technology planning capabilities at the national level;

(b) Sustainable use of natural resources;

(c) Cleaner production technologies;

(d) Biotechnology;

(e) Education and human resources development.

A. Coordination of legislative and policy-making bodies

1. Strengthened role of the Economic and Social Council: improved coordination within the United Nations system

73. The coordination of the work of legislative bodies is required mainly to ensure that overlapping mandates are avoided to the extent possible and, where collaborative action has to be promoted, that coordinated mandates and budgetary support are provided in the relevant intergovernmental bodies.

74. The Commission on Science and Technology for Development, the Commission on Sustainable Development and the Commission on Transnational Corporations report to the Economic and Social Council as subsidiary bodies. With regard to the legislative bodies of other organizations and specialized agencies of the United Nations system, the Economic and Social Council learns of coordination issues mainly through reports of ACC.

75. The role of the Economic and Social Council should be strengthened as a forum for coordination among all policy-making bodies of the United Nations organizations concerned with science and technology. For effective coordination at the Council level, however, considerable prior effort at achieving consensus and overall cooperation, particularly through ACC, would be necessary. The Council could concentrate on coordination at the policy level and entrust ACC to coordinate the implementation of Council decisions in practical terms.

2. Coordination between the Commission on Science and Technology for Development and the Commission on Sustainable Development

76. Both the Commission on Science and Technology for Development and the Commission on Sustainable Development have a mutual interest to work closely together. The Chairmen of the two commissions have already established a working relationship. The Commission on Science and Technology for Development will organize a panel of experts in the course of 1994 (see Council resolution 1993/74) to deal with one of the sectoral issues to be considered by the Commission on Sustainable Development in 1995. The Commission on Science and Technology for Development Bureau members are in consultation with the Commission on Sustainable Development Bureau and its secretariat in planning for that panel so as to be useful for the Commission on Sustainable Development's deliberation of 1995. Coordination in such a concrete way should result in mutual benefit.

3. Coordination between the Commission on Science and Technology for Development and the regional commissions

77. A comparison of the work programmes of the Commission on Science and Technology for Development and the Senior Advisers to ECE Governments on Science and Technology (SAST), for example, shows that their activities are interrelated and could benefit from increased interaction and exchange, even though the ECE senior advisers have a regional orientation. There are at least four major areas of interest to both bodies in which cooperation could be beneficial, namely:

(a) State science and technology policy;

(b) Endogenous capacity-building in science and technology;

(c) Conversion of military capacities for civilian use;

(d) Implementation of operational activities using UNDP and other funds.

78. The Intergovernmental Committee of Experts for Science and Technology for Development of ECA is now the African Regional Conference for Science and Technology. It has functions similar to those of the Senior Advisers to ECE Governments on Science and Technology in terms of policy making, providing advice and coordination of science and technology activities within the respective Commission and with other outside bodies, and could thus serve as the regional arm of the Commission on Science and Technology for Development as well as develop cooperative arrangements with the Commission.

79. The ESCAP Committee for Regional Economic Cooperation and its steering group currently deal with science and technology matters, among others. It is expected that CREC will adopt, at its fiftieth session, an action programme on endogenous capacity-building for investment-related technology transfer.

80. ESCWA and ECLAC do not have specific intergovernmental bodies devoted to science and technology. It may be useful to have mandates built into other related bodies, such as the Committee on the Environment and Sustainable Development or the Technical Committee of ESCWA, and the Committee of High-level Government Experts of ECLAC to address science and technology issues and ensure coordination of overall policies and programme approaches in those fields with those of the Commission on Science and Technology for Development.

B. Inter-agency coordination

1. Coordination at the global, regional and country levels

(a) Global level

81. Global coordination aims at harmonizing policies, as well as at formulating broad guidelines and criteria for the implementation of programmes and activities. On occasion, it includes a concentration of efforts with respect to identified global priority areas and division of work based on comparative advantages and areas of competence.

82. In order for coordination to exist at the global level, the coordinating body must have both the authority and the commitment of all participating bodies to agree on a course of action. The coordinating body at the highest level within the United Nations system is ACC.

83. For coordination to work in the United Nations system, there is a need on the part of the Member States to ensure, via their participation in the many independent governing bodies within the system, that they provide clear and continuous support to improving the coordination of United Nations activities and that their policies be consistent throughout these different bodies.

84. Specific measures have been suggested by the former ACC Task Force on Science and Technology for Development for coordination at the global level, including:

(a) Ensuring a greater participation of organizations and agencies in the work of the Commission on Science and Technology for Development, including in the preparatory and follow-up processes;

(b) Strengthening existing joint units and secondment procedures and facilitating the exchange of staff between different agencies;

(c) Coordinating the medium-term plans, programme budgets and budget cycles of concerned organizations and agencies, and incorporate therein, as appropriate and where possible, of identified inter-agency initiatives;

(d) Formulating a common framework and identification of broad areas of concentration in the activities of the United Nations organizations;

(e) Designating focal points for science and technology in the organizations and agencies for the exchange of views and for ensuring that

necessary science and technology issues are reflected in the discussions of IACSD and CCPOQ.

85. While the role of IACSD is fairly clearly defined in relation to Agenda 21 issues that pertain to science and technology, CCPOQ covers much broader issues of development. Some alternative inter-agency coordination may have to be considered under ACC or a Subcommittee of ACC on an ad hoc basis.

(b) Regional level

86. Coordination and cooperation at the regional level within the United Nations system is a primary mandate of the regional commissions. There is an increasing emphasis in that direction, together with an emphasis on improved coordination at the national level. A decentralized, region-by-region approach to international cooperation in pursuing science and technology for sustainable development is sometimes warranted by regional differences in local conditions and patterns of economic and technological activities.

87. Stronger linkages should be established among the regional technology centres under the regional commissions. The role of highly specialized and often high technology centres of UNIDO, UNU and others should also be explored to create synergies with other related activities of the United Nations system.

(c) Country level

88. It has been recognized that the subject of science and technology is not a sector by itself but a tool or means for the development of the nation and of its productive sectors. Since many issues of development and sustainability are location-specific, a forward-looking strategy for science and technology needs to consider a wider range of factors related or contributing to development under given conditions.

89. Coordination can be most effectively achieved at the country level by the existing United Nations establishments/mechanisms at country and/or regional levels, which include the United Nations resident coordinator or UNDP resident representatives in cooperation with country-level or regional-level representatives of United Nations organizations and bodies.

90. It is only when substantive areas have been defined that an appropriate machinery can be made efficient and effective. The recent trend of field activities in science and technology has increasingly focused on endogenous capacity-building in developing countries, together with the development of capabilities in specific technologies that would optimize the use of locally available expertise, skills and resources.

91. In view of recent advances in science and technology, the fields of new and advanced technologies, such as biotechnology, informatics, decision support technology applied to policy planning, as well as integrating science and technology in the development planning and management process, with specific emphasis on sustainability aspects, could be considered as relevant issues for inter-agency cooperation.

92. Technology assessment, forecasting and monitoring capabilities constitute an important part of endogenous capacity-building. The primary aim of inter-agency cooperation in that field should be to create or strengthen national capacities by moving away from narrow sectoral approaches. The work in that field also requires a close cooperation with business and industry in both developed and developing countries to deal with the development and transfer of technologies.

93. Policy studies are an important element of inter-agency cooperation at the country level. Joint inter-agency and interdisciplinary teams carrying out such comprehensive studies at the request of the concerned Governments should be encouraged.

94. A careful assessment of pilot country projects on endogenous capacity-building should be carried out by an independent ad hoc group of evaluators upon completion in 1994. That programme has been undertaken by the United Nations Fund for Science and Technology for Development with the UNDP Office for Project Services as executing agency and the former Centre for Science and Technology for Development as the substantive manager. Lessons learned from those projects would be particularly useful in:

(a) Improving the methodology of impact assessment on the United Nations system-sponsored science and technology activities at the country level, as a potential role for country programming in science and technology;

(b) Analysing the advantages/disadvantages of the approaches taken by the ECB projects in prioritization of science and technology initiatives, in consensus-building through policy dialogues etc;

(c) Considering the feasibility of developing a manual or guidelines applicable to other countries.

2. Coordination of operational activities

95. The fact that mandates of different United Nations bodies and agencies seem to overlap in a number of cases suggests the need to examine how those bodies and agencies are translating their mandates into operational activities. This requires an in-depth evaluation on an ongoing basis by appropriate coordinating bodies at the inter-agency level.

96. A number of proposals have already been made with regard to coordination of operational activities at the field level. The General Assembly, in its resolution 47/199 on the triennial policy review of operational activities for development within the United Nations system, for instance, stated that the mandates of the separate sectoral and specialized entities, funds, programmes and specialized agencies should be respected and enhanced, taking into account their complementarities, but reaffirmed that, within the context of JCGP, the funding organizations of the United Nations system established in 1981 - UNDP, UNICEF, UNFPA, WFP, IFAD and the funds administered by UNDP - should harmonize their cycles, and, where appropriate, adapt them to national budget cycles, plans and strategies.

97. The General Assembly requested inter-agency coordination mechanisms, in particular JCGP, to give priority to simplifying, harmonizing and increasing the transparency of their procedures relating to programme component and project formulation, appraisal, implementation, monitoring and evaluation, taking into account the need to focus on the impact and sustainability of projects and programmes.

98. As JCGP is promoting common strategies in support of Agenda 21, it could also provide a framework for promoting and coordinating science and technology programmes and activities for development.

99. The General Assembly also emphasized, in the same resolution, that the recipient Government has the primary responsibility for coordinating, on the basis of national strategies and priorities, all types of external assistance, including that provided by multilateral organizations, in order effectively to integrate the assistance into its development process.

100. Another coordination mechanism for operational activities is the UNDP Inter-Agency Consultative Meetings (IACM) established in 1978 to deal with programme issues concerning UNDP-financed technical cooperation. Recent discussions in IACM included the application of the programme approach and the need to put greater emphasis on the collaborative framework relating to Capacity 21.

3. Building an inter-agency information network

101. The minimum requirement for improved coordination is the exchange of information on a more regular, systematic basis. In that regard, United Nations agencies recognize the strong need for designing and implementing a computer-based, integrated information network and regular means of communication (e.g., through tele-conferencing, E-mail, telenetworks via satellites etc.) within the United Nations system to link units and projects oriented towards science and technology issues. Such a network, which would be an important tool for more effective coordination, might also include governmental cooperation agencies and non-governmental organizations specialized in the same field. It would be useful to include bibliographic data on agency reports in information to be exchanged or databases to be accessed.

102. A functional data system could include information on biennial programmes approved by the corresponding governing bodies, work plans approved by the executive heads, a timetable of major events; such information would be useful for global- or regional-level coordination. At national and regional levels, the data system should focus on the details of operational activities, including information on ongoing and planned advisory missions, training activities, appraisal and evaluation missions and extrabudgetary projects. That information should be increasingly made available to the Member States concerned, as well as being used for field coordination among all the donors concerned, particularly within the United Nations system.

103. The inter-agency distribution of regular documentation should also be improved so as to make it more systematic. It should take the form of exchanges of publications, newsletters etc. on a regular, complementary basis.

104. Inter-agency coordination often requires extensive reporting and preparation of papers on a regular basis. Given the current financial and organizational constraints, it is suggested that resources be devoted to operational and substantive issues in such reporting.

4. Joint efforts to develop indicators

105. For many years, various United Nations organizations have undertaken work aimed at developing science and technology indicators. More attention is currently being paid to developing indicators for sustainable development. The indicator-related work is complex, continuous and time-consuming. The lessons learned in the work on science and technology indicators of relevance to developing countries would be useful in the work on sustainable development indicators. Also, because of the commonality of certain indicators, it would be desirable to harmonize indicators and the related work by different agencies to ensure their application in a consistent manner, while recognizing that indicators may be given different weights in different sectors and different regions.

5. Coordination around specific substantive themes

106. In the context of the new coordinating arrangements through IACSD, the effectiveness of the coordination of the United Nations system inputs to the Commission on Sustainable Development depends partly on the performance of the designated task managers to promote information exchange and inter-agency cooperation on specific themes. The monitoring function of the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat and IACSD also becomes important in that regard.

107. The themes to be considered on an inter-agency basis need to be carefully defined so as to have broad application and yet enable the United Nations agencies to adequately deal with their respective mandates.

6. Pooling of resources

108. Existing resources from different United Nations agencies concerned with science and technology could be pooled to carry out activities in areas of common interest. Such pooled resources could be used to finance joint research and operational activities on the basis of joint project formulation and preparation. Projects at the national level could also be implemented by more than one agency on a cost-sharing basis. That would stimulate a new spirit of understanding and collaboration between the different organizations in subject areas that are closely related to each other's concerns.

109. The Global Environmental Facility (GEF) should be open to receive eligible proposals for inter-agency cooperative projects in the areas of climate change, biological diversity, pollution of international waters and depletion of the ozone layer. Depending upon its future financial strength, the Fund for Science and Technology for Development could also support well-defined and focused inter-agency activities in selected areas.

7. Simplification of cooperative arrangements

110. There is a need to simplify formal administrative and financial procedures between agencies to reduce the complexity of formal inter-agency cooperative agreements.

Notes

1/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations Conference, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

References

Note by the Secretary-General on the comprehensive policy review of operational activities of the United Nations system (A/47/419/Add.1).

Report of the Secretary-General on policy guidelines for the harmonization of activities of the organizations of the United Nations system in science and technology for development (A/CN.11/84).

Report of the Director-General for Development and International Economic Cooperation on new developments and trends in the programmes and activities of the United Nations system in science and technology for development (A/CN.11/1991/5).

Report of the Secretary-General on the contribution of technology to industrialization and regional and global integration (E/CN.16/1993/2).

Report of the Secretary-General on ways and means of improving the quality of coordination and cooperation in science and technology for development (E/CN.16/1993/2).

Report by the UNCTAD secretariat on the work of the United Nations system and selected organizations dealing with investment-related technology issues (TD/B/WG.5/6).

Summary record of the consensus reached at the inter-agency meeting to discuss coordination and cooperation in science and technology in the United Nations system (TFSTD/XI/7).

Annex I

UNITED NATIONS TECHNICAL COOPERATION EXPENDITURES, BY SECTOR AND FUNDING SOURCES, 1990 AND 1991

(Thousands of United States dollars)

ACC programme classification categories	Total expenditures a/ (1) + (2) + (3)		Funded by regular budgets (1)		Funded by extra-budgetary sources other than UNDP, UNFPA and UNDP-administered funds (2)		Funded by UNFPA (3)		Funded by UNDP-administered funds		Funded by UNDP-central resources b/	
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
01 Political affairs	4 292	5 477	305		3 987	5 477			324	38	932	1 863
02 General development issues, policy and planning	27 460	27 932	8 775	9 482	18 685	18 450			12 189	16 558	224 951	289 430
03 Natural resources	66 096	56 724	22 381	18 160	43 715	38 564			19 716	15 041	112 269	109 716
04 Agriculture, forestry and fisheries	237 615	195 487	40 544	44 859	197 071	150 628			14 542	29 323	195 952	197 248
05 Industry	64 054	74 694	7 420	8 461	56 634	66 233			7 438	3 811	120 658	120 034
06 Transport and communications	40 229	43 333	4 138	5 226	36 091	38 107			14 521	12 081	87 309	83 509
07 International trade and development finance	27 393	37 593	1 034	1 170	26 359	36 423			792	1 203	29 414	31 817
08 Population	170 703	174 899	9	25	1 665	3 096	169 029	171 778	122	185	1 036	1 863
09 Human settlements	2 043	5 621	891	733	1 152	4 888			3 846	8 015	25 892	25 196
10 Health	325 073	360 211	113 739	158 725	211 334	201 486			6 383	9 673	45 467	57 192
11 Education	22 701	22 718	5 857	7 740	16 844	14 978			4 329	3 446	38 839	35 984
12 Employment	41 898	45 257	9 141	10 932	32 757	34 325			770	777	45 882	52 335
13 Humanitarian aid and relief	497	10	2	1	495	9			3 449	5 192	14 396	21 627
14 Social conditions and equity	8 121	14 911	3 241	4 476	4 880	10 435			5 301	6 530	26 401	36 654
15 Culture	15 935	20 573	5 677	6 312	10 258	14 261			175	491	8 389	8 751
16 Science and technology	31 720	36 457	10 019	10 692	21 701	25 765			4 063	1 841	57 896	50 581
17 Unspecified	3 275	745	757	514	2 518	231					683	
Total	1 089 105	1 122 642	233 930	287 508	686 146	663 356	169 029	171 778	97 960	114 205	1 036 366	1 123 900

Source: DP/1993/57/Add.1

(Footnotes on following page)

(Footnotes to annex I)

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a/ Excluding all expenditures incurred by UNDP (central resources and administered funds), in keeping with the new definition of non-UNDP-financed technical cooperation expenditures.

b/ Provisional data covering IPFs, SPR, SMF/LDC, SIS, cost-sharing and trust funds established by the Administrator, where applicable.

Annex II

MANDATES OF THE ORGANS, ORGANIZATIONS AND BODIES OF THE UNITED NATIONS SYSTEM IN SCIENCE AND TECHNOLOGY

Ad-Hoc Working Group on Interrelationship between Investment and Technology Transfer (UNCTAD) [Ref. 15 (A/47/15)]	***Commission on Transnational Corporations (CTC) [Ref. ECOSOC res. 1913 (LVIII)]***	***Commission on Science and Technology for Development (CSTD) [Ref. E/1992/76]***	***Commission on Sustainable Development (CSD) [Ref. A/Res/47/191]***
To examine the inter- relationship between investment flows and the transfer, absorption and generation of technology and related policy measures;	To act as the forum within the UN system for the comprehensive and in-depth consideration of issues relating to transnational corporations;	Promoting int'l cooperation in S&T for development and helping solve global S&T problems;	To review the progress in the implementation of the commitments contained in Agenda 21, including those related to transfer of technology;
To identify the main factors conducive to technology transfer through foreign investment;	To act as the forum within the United Nations system for the comprehensive and in-depth consideration of issues relating to foreign direct investment and transnational corporations;	Identifying priorities for activities within the Vienna Programme of Action to facilitate operational planning;	To consider problems Governments face in implementing Agenda 21, such as problems related to technology transfer, etc;
To analyse the role of intellectual property protection in int'l investment and tech. flows and in the development of endogenous tech. capabilities;	To provide guidance, on the rendering of advisory services to interested Governments and promote programmes of technical cooperation;	Early identification and assessment of new S&T developments with adverse or positive effects on the development;	To analyse the implementation of Agenda 21 by non-governmental organizations, including scientific and private sector;
To examine the role of private firms, Gov'ts and int'l orgs. in the transfer of technology and in the creation and dissemination of technology, including investment in R&D and training;	To undertake work which may assist the Economic and Social Council in evolving international arrangements and agreements relating to transnational corporations, including organization of the work of Ad Hoc intergovernmental Group of Experts on international standards for accounting and reporting.	Choosing subjects with major S&T components to provide technology assessment and related policy analysis for the General Assembly; providing S&T expert advice to ECOSOC and other intergovernmental organizations;	To review capacity-building programmes, information networks and other mechanisms to support the integration of environment and development at regional and subregional levels.
To consider the impact of tech. change on investment decisions and production patterns, trade competitiveness and national capacities for innovation and adaptation; to consider also the role of foreign investment in technology transfer and technology development, including organizational technology;		Formulating policy guidelines for the harmonization of policies within the UN system; monitoring S&T activities in the UN system; providing policy guidance for UNFSTD; and promoting mobilization of resources;	
To examine new initiatives and exchange of experiences on investment and technology policies.		Promoting the improvement of linkages between organs, organizations and bodies of the United Nations system;	

United Nations Conference on Trade and Development (UNCTAD) [Ref: The Cartagena Commitment, at UNCTAD VIII]	*International Labour Organization (ILO) [Ref. Tripartite constituents of ILO]*	*Food and Agriculture Organization (FAO) [Ref. Constitution of FAO Article I]*	*United Nations Environment Programme (UNEP) [Ref: GA Res. 2997(XXVII)]*
Promote transfer of technology to, and development of technological capabilities in developing countries.	Concentrate on enhancing labour productivity and labour absorption, training and capacity building; the effects of technological change on the nature of work and on occupational safety and health;	To promote and, where appropriate, recommend national and international action with respect to: (a) scientific, technological, social and economic research relating to nutrition, food and agriculture;	To coordinate environmental programmes within the United Nations system, to keep their implementation under review and to assess their effectiveness;
Interrelationship of technology issues with trade in goods and services, investment, finance and environment;	Focus on technological policy formulation; technology adoption; and environment and sustainable development;	(b) the improvement of education and administration relating to nutrition, food and agriculture, and the spread of public knowledge of nutritional and agricultural science and practice;	To advise intergovernmental bodies of the United Nations system on the formulation and implementation of environmental programmes;
Technical cooperation activities.	Collection, analysis and dissemination of information on the implications of new technologies, blending of new technologies with traditional activities; and technologies which are appropriate for meeting social objectives in developing countries.	(c) the conservation of natural resources and the adoption of improved methods of agricultural production;	To secure the effective cooperation of, and contribution from, the relevant scientific and other professional communities in all parts of the world;
		(d) the improvement of the processing, marketing and distribution of food and agricultural products.	To provide advisory services for the promotion of international cooperation in the field of the environment.

United Nations Industrial Development Organization (UNIDO) [Ref. Constitution of UNIDO]	*World Intellectual Property Organization (WIPO) [Ref. Treaty Series Vol.828] Article 4*	*United Nations University (UNU) [Ref. Charter of UNU Article I]*	*International Civil Aviation Organization (ICAO) [Ref. Article 44 of the Convention on International Civil Aviation]*
Extend assistance in the promotion and acceleration of industrialization;	To promote the development of measures for the protection of intellectual property throughout the world and to harmonize national legislations in this field;	To conduct research programmes including environment and the proper use of resources; basic scientific research and the application of the results of science and technology in the interests of development;	To develop the principles and techniques of international air navigation and to foster the planning and development of international air transport;

United Nations Industrial Development Organization (UNIDO) [Ref. Constitution of UNIDO]	*World Intellectual Property Organization (WIPO) [Ref. Treaty Series Vol.828] Article 4*	*United Nations University (UNU) [Ref. Charter of UNU Article I]*	*International Civil Aviation Organization (ICAO) [Ref. Article 44 of the Convention on International Civil Aviation]*
Create new and develop existing concepts and approaches in respect of industrial development;	To offer its cooperation to States requesting legal-technical assistance in the field of intellectual property;	To disseminate the knowledge to scholars and to the public, in order to increase dynamic interaction in the worldwide community of learning and research;	To encourage the arts of aircraft design and operation for peaceful purposes;
Promote and encourage the development and use of planning techniques, and assist in the formulation of development, scientific and technological programmes and plans for industrialization in the public, cooperative and private sectors;	To assemble and disseminate information concerning the protection of intellectual property, carry out and promote studies in this field, and publish the results of such studies;	To endeavour to alleviate the intellectual isolation of persons in the academic and scientific communities in the developing countries which might otherwise become a reason for their moving to developed countries;	To encourage the development of airways, airports, and air navigation facilities for international civil aviation;
Serve as a clearing-house for industrial information including on technological achievements;	To maintain services facilitating the international protection of intellectual property and, where appropriate, provide for registration in this field and the publication of the data concerning the registration;	To assist scholars to participate in research in order to increase their capability to contribute to the extension, application and diffusion of knowledge through post-graduate training;	To ensure the safe and orderly growth of international civil aviation throughout the world;
Promote, encourage and assist in the development, selection, adaptation, transfer and use of industrial technology and organize and support industrial training programmes.	To take appropriate action for facilitating the transfer of technology related to intellectual property to the developing countries in order to accelerate economic, social and cultural development (Ref: Agreement between the UN and WIPO).	To train persons who will serve in international or national technical assistance programmes, particularly in regard to an interdisciplinary approach to the problems with which they will be called upon to deal.	To promote safety of flight in international air navigation;
International Atomic Energy Agency (IAEA) [Ref. Statute of IAEA, Article III]	*United Nations Educational, Scientific and Cultural Organization (UNESCO) [Ref. Constitution of UNESCO, Article I]*	*United Nations Children' Fund (UNICEF) [Ref.E/5453/Rev. 1]*	*World Health Organization (WHO) [Ref. Constitution of WHO, Article 2]*
To foster the exchange of scientific and technical information on peaceful uses of atomic energy;	To maintain, increase and diffuse knowledge through cooperation among nations in intellectual activity, including international exchange of persons active in education, science and culture and exchange of publications, objects of artistic and scientific interest and information materials;	To provide material aid in the form of a wide variety of supplies and equipment for basic children's services;	To promote cooperation among scientific and professional groups which contribute to the advancement of health;

International Atomic Energy Agency (IAEA) [Ref. Statute of IAEA, Article III]	*United Nations Educational, Scientific and Cultural Organization (UNESCO) [Ref. Constitution of UNESCO, Article I]*	*United Nations Children' Fund (UNICEF) [Ref.E/5453/Rev.1]*	*World Health Organization (WHO) [Ref. Constitution of WHO, Article 2]*
To encourage the exchange and training of scientists and experts in the field of peaceful uses of atomic energy;	To promote international co-operation in the basic and engineering sciences, as well as in major areas of the environmental sciences, including oceanography, the ecological sciences and biodiversity, the water sciences, and the earth sciences.	To provide financial aid to help meet some of the local costs of developing these services, especially in the form of stipends for training of local personnel.	To furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments;
To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world;			To establish and maintain such administrative and technical services as may be required, including epidemiological and stastical services;
To make provision for materials, services, equipment, and facilities to meet the needs of research on, and development and practical application of, atomic energy for peaceful purposes;			To promote and conduct research in the field of health.

United Nations Development Programme (UNDP) [E/5453/Rev.1]	*United Nations Fund for Population Activities (UNFPA) [Ref. E/5453/Rev.1]*	*International Telecommunication Union (ITU) [Ref. ITU Constitution, Article 1]*	*United Nations Fund for Science and Technology for Development (UNFSTD)*
To assist the developing countries in their efforts to accelerate their economic and social development by providing systematic and sustained assistance geared to their national development plans, priority needs and objectives, with the purpose of promoting the attainment of higher levels of economic and social welfare for their entire populations. UNDP programmes of assistance, which respond to needs arising from national objectives and priorities, are formulated by Governments themselves, in cooperation with UNDP.	To build up, on an international basis, with the assistance of the competent bodies of the United Nations system, the knowledge and the capacity to respond to national, regional, interregional and global needs in the population and family planning fields; to promote coordination in planning and programming; and to cooperate with all concerned.	To maintain and extend international cooperation between all Members of the Union for the improvement and rational use of telecommunications of all kinds; To promote and to offer technical assistance to developing countries in the field of telecommunication, and also to promote the mobilization of the material and financial resources needed for implementation;	To help design, implement and mobilize resources for a range of activities intended to strengthen the endogenous scientific and technological capacities of developing countries.

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International Maritime Organization (IMO) [Ref. Convention of IMO, Article I]	*International Telecommunication Union (ITU) [Ref. ITU Constitution, Article 1]*	*Economic Commission for Africa (ECA - Secretariat) [Ref.E/5453/Rev. 1]*	*Economic and Social Commission for Asia and the Pacific (ESCAP - Secretariat) [Ref. E/5453/Rev. 1]*
To provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade;	To promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunication services, increasing their usefulness and making them, so far as possible, generally available to the public.	To make or sponsor such investigations and studies of economic and technological problems and developments within the territories of Africa as the Commission deems appropriate, and disseminate the results of such investigation studies;	To make or sponsor such investigations and studies of economic and technological problems and developments within territories of Asia and the Pacific as the Commission deems appropriate;
To provide for the consideration by the Organization of any matters concerning shipping and the effects of shipping on the marine environment that may be referred to it by any organ or specialized agency of the United Nations;		To undertake or sponsor the collection, evaluation and dissemination of such economic, technological and statistical information as the Commission deems appropriate;	To undertake or sponsor the collection, evaluation and dissemination of such economic, technological and statistical information as the Commission deems appropriate;
To provide for the exchange of information among Governments on matters under consideration by the Organization.		To assist in the formulation and development of coordinated policies as a basis for practical action in promoting economic and technological development in the region.	Perform such advisory services to the countries of the region as do not overlap with those rendered by the specialized agencies.
Economic Commission for Europe (ECE - Secretariat) [Ref. E/5453/Rev. 1]	*Economic and Social Commission for Western Asia (ESCWA - Secretariat) [Ref. E/5453/Rev. 1]*	*Economic Commission for Latin America and the Caribbean (ECLAC - Secretariat) [Ref. E/5453/Rev. 1]*	*Committee on the Peaceful Use of Outer Space (DPSCA)*
To make or sponsor such investigations and studies of economic and technological problems and developments within member countries of the Commission and within Europe generally as the Commission deems appropriate;	To make or sponsor such investigations and studies of economic and technological problems and developments within the territories of Western Asia as the Commission deems appropriate;	To make or sponsor such investigation and studies of economic and technological problems and developments within territories of Latin America as the Commission deems appropriate;	To act as the "focal point" for international cooperation in the peaceful exploration and uses of outer space; and give priority to international cooperation in the applications of space technology for economic and social development;
To undertake or sponsor the collection, evaluation and dissemination of such economic, technological and statistical information as the Commission deems appropriate.	To undertake or sponsor the collection, evaluation and dissemination of such economic, technological and statistical information as the Commission deems appropriate.	To undertake or sponsor the collection, evaluation and dissemination of such economic, technological and statistical information as the Commission deems appropriate.	To carry out coordination of space activities within the UN system and among international organizations.

United Nations Centre for Human Settlements (HABITAT) [Ref. Resolutions of the Commission on Human Settlements]	*World Meteorological Organization (WMO) [Ref. Convention of WMO Article 2]*	*Department for Policy Coordination* and Sustainable Development *[Ref: A/48/6 (sect.8)]*	*Governing Council of UNDP [Ref. E/5453/Rev.1]*
To promote appropriate transport technologies and intermediate transportation systems;	To encourage research and training in meteorology and, as appropriate, in related fields in coordinating the international aspects of such research and training.	To provide support for the central coordinating and policy-making functions vested in the Economic and Social Council and its subsidiary bodies, as well as for the Second Committee of the General Assembly;	To provide general policy guidance and direction for the UNDP as well as for the United Nations regular programmes of technical assistance.
To provide assistance in the use and promotion of local materials and in the assimilation of local techniques for the use of those materials;	To promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information.	To concentrate on: (a) policy development, integrating the economic, social and environmental dimensions of major policy issues; (b) monitoring the implementation of Agenda 21; (c) supporting the Secretary-General in his responsibilities for system-wide coordination and assisting him, along with other organizations entities, in ensuring policy coherence, coordination and efficient management in the economic and social sectors within the United Nations proper; (d) coordinating the follow-up of global conferences and events and programmes; (e) providing technical secretariat services to central intergovernmental bodies.	
To provide information exchange on production technologies for small-scale building materials and to promote specific production technologies through workshops and similar training mechanisms;	To promote standardization of meteorological and related observations and to ensure the uniform publication of observations and statistics;	To provide substantive support to the Commission on Sustainable Development; promote the integration of environmental and developmental goals in the activities of the United Nations system; and promote continuous dialogue between Member States on issues of sustainable development, including progress in capacity-building and the promotion of the transfer of environmentally sound technologies.	
To actively encourage international cooperation, as well as the exchange of information and relevant technologies, in relation to maintenance of buildings and infrastructure;	To further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities;		

United Nations Centre for Human Settlements (HABITAT) [Ref. Resolutions of the Commission on Human Settlements]	*World Meteorological Organization (WMO) [Ref. Convention of WMO Article 2]*	*World Health Assembly (WHO) [Ref. constitution of WHO]*	*General Conference of UNESCO [Ref. Constitution of UNESCO, Article IV]*
To prepare technical publications, promote new and renewable sources of energy and energy-efficient and clean technologies in the household sector, in the production of building materials and in on-site construction operations in developing countries;	To promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services; and	To promote and conduct research in the field of health by the personnel of the Organization, by the establishment of its own institutions or by cooperation with official or non-official institutions of any Member with the consent of its Government;	To determine the policies and main lines of work of the Organization and to take decision on programmes submitted by the Executive Board;
To prepare technical publications and information material and the organization of demonstration projects and training programmes to facilitate capacity-building in developing countries for environmentally-sound production of cost-effective and durable building materials.	To facilitate worldwide cooperation in the establishment of networks of stations for meteorological observations as well as hydrological and other geophysical observations related to meteorology;	To determine the policies of the Organization.	To advise the United Nations Organization on the educational, scientific and cultural aspects of matters of concern to the latter.
African Regional Conference on Science and Technology (ECA) [Ref. E/1993/38]	*Senior Advisers to ECE Governments on Science and Technology (ECE) [Ref. ECE/SC.TECH./42]*	*Governing Council of UNEP [Ref. E/5453/Rev.1]*	*Industrial Development Board (UNIDO) [Ref. E/5453/Rev.1]*
To assist the Commission in the definition and periodic review of programmes for the development and application of science and technology, including nuclear science and technology, in the Africa region;	To exchange information between member Governments in the formulation and/or implementation of science and technological policy;	To promote international cooperation in the field of the environment and provide general policy guidance for the coordination of environmental programmes within the system;	To formulate principles and policies to achieve the purpose of the Organization;
To promote science and technology and formulate measures to ensure their application to national, subregional and regional development;	To formulate proposals aiming at promotion of international cooperation in the field of science and technology policy;	To promote the contribution of international scientific and professional communities to the acquisition, assessment and exchange of environmental knowledge; and review the impact of national and international environmental policies and measures on developing countries;	To consider and approve the programme of activities of the Organizations, involving such areas as industrial technology, production, programming and planning; information on technological innovations; technological research; training of technical personnel;
To give special consideration to the needs of the least developed member States, and to the application and impact of new and emerging technologies;	To improve and coordinate the activities of the subsidiary bodies of the Commission in the field of science and technology; and	To keep under continuing review the impact of national and international environmental policies on developing countries and programmes within the United Nations system to overall economic and social policies and priorities.	To review and facilitate the coordination of activities within the United Nations system in the field of industrial development.

African Regional Conference on Science and Technology (ECA) [Ref. E/1993/38]	*Senior Advisers to ECE Governments on Science and Technology (ECE) [Ref. ECE/SC.TECH./42]*		
To advise the Executive Secretary on ways and means of mobilizing resources of all kinds for the implementation of strategies, programmes and projects for the development and application of science and technology within the region.	To coordinate the activities of the Commission with other international and intergovernmental organizations dealing with problems of scientific and technological cooperation.		

Annex III

PROGRAMMES AND ACTIVITIES OF THE ORGANS, ORGANIZATIONS AND BODIES OF THE UNITED NATIONS SYSTEM IN SCIENCE AND TECHNOLOGY

Capacity-building				
UNU	**UNESCO**	**UNIDO**	**ICAO**	**ESCAP**
Mobilizing Technological Capabilities in Developing Countries (UNU/INTECH) - Focuses on determining how the scientific and technological infrastructure of a number of important Third World economies can be used more effectively in general and, in particular, in relation to the development and application of new technologies; *New Technologies and the Division of Labour in Production (UNU/INTECH)* - Assesses the training and educational needs of women, with a view toward maximizing the opportunities that new technologies could offer them, while minimizing potential threats. *Biotechnology for Latin America and the Caribbean (UNU/BIOLAC)* - Promotes academic exchanges, research and post-graduate training through the network approach in three priority programme areas: vaccines and diagnostics, plant biotechnology and micro-organisms of industrial interest;	*Programme:* Science and Technology for Development - Aims at improving teaching in basic and engineering sciences, building up national research capacities, and promoting transfer of research results to industry, and strengthening national and regional capacities, particularly in developing countries; Environment and Natural Resources Management - Aims at developing national capabilities for the study and management of water resources, ecosystems, biodiversity, oceans and coastal zones, mineral and non-renewable resources and natural hazards, as well as for the sustainable development of resources.	*Industrial Technology Development and Promotion* - Emphasizes development of endogenous capacities in the developing countries to facilitate development and transfer of technology throughout the industrial sector; develops new modes of cooperation to assist policy makers and enterprises in responding to the rapidly changing technological environment; follows an integrated approach comprising technology policy and management support, information, assistance in technology acquisition and negotiations, sensitization to new technological developments and their implications, joint research and development, and training through international centres and networks.	*Cooperation and Capacity-building* - Fosters endogenous capacity building in civil aviation technology through the provision of technical experts, the provision of training fellowships and assistance in the development of national and subregional civil aviation training institutes. *Science and Technology Activities* - Develops technical standards to ensure safety in international air navigation, through major technical Air Navigation Programme.	Strengthening industrial and technological capabilities and ensuring the long-term sustainability of resources with particular consideration for energy use, conservation and efficient utilization of natural resources, and environmental protection; Human resources development, planning and management to meet the requirements for existing and new and emerging technologies and overall industrial development; Promotion of regional and subregional cooperation through sharing experience, institutional facilities and dissemination of information in the fields of industrial and technological development.

Capacity-building (Cont'd)				
UNU	**IMO**	**UNCTAD**	**ILO**	**FAO**
Geothermal Energy Training Programme - Provides theoretical and practical training in various areas of geothermal such as exploration, borehole geology, reservoir engineering, chemistry of thermal fluids, and drilling technology, in order to build up a cadre of specialists in geothermal departments of developing countries; *Eco-Restructuring for Sustainable Development* - Aims at generating the knowledge and skills needed to understand and manage the highly complex, dynamic and often non-linear system underlying the vast transition towards sustainable development. The transition calls for profound economic and technological changes, and has important implications in terms of population, energy policy, and rational use of natural resources for sustainable development; *Natural Resources in Africa (UNU/NRA)* - Aims at human resource development and institutional capacity building through training and research activities for the effective management and conservation of Africa's natural resources (biological and mineral) and their rational utilization for sustainable development.	*Marine safety* - Provides machinery for technical and scientific cooperation among Governments in the field of maritime safety assigning priorities in the light of technological developments and changing needs; Strengthen the global, regional and national capacities to maintain and improve maritime safety and to promote technical cooperation to this end; Promotes technical cooperation programmes relating to the prevention, control and combating of marine pollution from ships.	*International trade, investment, technology* - Endogenous Capacity-Building and Resource Mobilization - Emphasizes country-level dialogues leading to the formulation of different strategies for strengthening the endogenous capacity of developing countries.	*Endogenous capacity building* - Provides some useful policy insights on the process of endogenous capacity building in science and technology. *Training needs for the effective utilization of new technologies* - Identifies measures which improve linkages between labour market skill requirements and training programmes and focus on enhanced management and professional capacity of public training systems;	*Research Development* - Programme elements include: strengthening agricultural research management capabilities through training; research review missions and advisory services; technology assessment and transfer within a farming system context; research policy, planning and information; international agricultural research support; and science and technology coordination with other UN and specialized agencies; *Remote Sensing and Agrometeorology* - FAO's Remote Sensing Centre serves as the focal point within the UN system for remote sensing applied to renewable natural resources. Other components of the sub-programme include remote sensing education and training; advisory services on space applications to agriculture, forestry, fisheries and environmental monitoring and pilot action studies; satellite monitoring of environmental conditions; agrometeorological crop monitoring and forecasting; agrometeorological and agronomical information and databases; (Cont'd)

Capacity-building (Cont'd)				
FAO (Cont'd)	**IAEA**	**UNFPA**	**WIPO**	**ITU**
monitoring, collection and provision of data and documentation relevant to assessing the impact of climate change; and standardization of agroclimatic applications. Energy - FAO's Programme includes policy advice on rural energy development; other elements include technology assessment, information and coordination with other UN and specialized agencies. GIS - The Geographic Information System Centre is the focal point of GIS applications in FAO. It develops and maintains global cartographic databases for natural resources applications and advises FAO's technical divisions and Member Countries on the use of GIS technology.	*Programme: Radioactive Waste Management* - Places emphasis on providing technical guidance to Member States on handling conditioning and storage of radioactive wastes; and radiological and environmental aspects of waste management.	*Data collection and analysis, population policy formulation, and research and training* - provides technical assistance to census activities to assist the Member States to keep abreast of new technologies and emerging issues in census design;	Training courses and seminars on the promotion of inventive/creative activities on licensing and other arrangements relating to the transfer of technology protected as intellectual property, and on the administration and use of intellectual property by the government, institutions and enterprises.	Strengthening of national telecommunication technical and administrative services through, inter alia, transfer of technology through R&D for the design of telecommunication equipment; advanced-level training programmes; technical strengthening through the design, construction and installation of digital telephone exchanges, transmission and satellite communication equipment; and introduction of computer technologies for frequency management.
UNICEF	**UNFSTD**	**DPSCA**	**DDSMS**	**UNEP**
Nutrition and Household Food Security - National and community capacity building and establishment and strengthening of training activities and nutrition networks.	Strengthens endogenous capacity through organizing policy dialogues among stakeholders for improving the decision-making process in Science & Technology and emphasizes technology assessment, prioritization and the building-up of portfolios of projects with Science and Technology dimension. Technology incubators are used to tap national entrepreneurial and technical talent by reducing the financial risk for entrepreneurs and by providing an environment for innovation.	Provides technical advisory services to Member States on satellite communications, remote sensing, basic space science and satellite meteorology; Organizes training courses and workshops for participants from developing countries on selected topics dealing with space science and technology applications, communications, satellite meteorology and remote sensing.	Acts as an executing agency for programmes/projects relating, respectively, to institutional development and human resource development, in such areas as development planning, policies and infrastructure, public information, enterprise management and natural resources and energy planning and management.	Undertakes activities relating to transfer of environmentally sound technology, cleaner production, public and technical information, environmental economics, toxic chemicals, hazardous wastes, atmosphere, terrestrial ecosystems, and environmental law and institutions.

Capacity-building (Cont'd)				
WMO	**HABITAT**	**WORLD BANK**		
Education and Training Programme - surveys personnel training requirements, the development of appropriate training programmes, the establishment and improvement of regional training centres, the organization of training courses, seminars and conferences and the preparation of training materials; *Technical cooperation programme* - Assists developing countries in improving their Meteorological and Hydrological Services to better serve the needs of their people; *Regional programme* - Promotes cooperation between Members on matters affecting the work of national Meteorological and Hydrometeorological Services.	*Environmental infrastructure* - Publishes technical manuals on appropriate technologies for low-income communities; develops a strategy for inter-agency collaboration in implementing the recommendations of Agenda 21 in the field of urban water resources; focuses on building capacities in developing countries for solid waste management in an environmentally sound manner; and carries out research on the promotion of small-scale waste recycling technologies.	Supports joint ventures with other agencies to improve institutional capacity.		

Information				
ILO	**FAO**	**UNEP**	**UNIDO**	**WMO**
Dissemination of technological information - extends technological, marketing and other information essential for the survival and competitiveness of informal sector enterprises, through ILO technological information system (INSTEAD). ***Impact of technological change on working conditions and environment*** - Formulates a draft code of practice on workers' privacy covering data protection and specific methods of data collection such as electronic monitoring and surveillance techniques; prepare a manual on ergonomics and work organization for both small enterprises and more technologically advanced large enterprises; emphasize preventive measures such as adaptation of machines and equipment to workers, the introduction of new technologies in ways which reduce work stress and improve the content of jobs; and plays a key role in the ongoing elaboration of a new basis for expanded and strengthened interagency cooperation in the International Programme on Chemical Safety (IPCS).	***AGRIS, CARIS and Field Documentation Activities*** - the main thrust is the coordination and operation of two international cooperative information systems, AGRIS and CARIS. It is also intended to assist developing countries, upon request, to strengthen their national and regional agricultural documentation services and networks;	***Environmental Assessment*** - activities include INFOTERRA, provision of referral services to users and on-line access to data banks for environmental information; the Global Resource Information Database (GRID) technology application and capacity-building; the Global Environmental Monitoring System (GEMS), an early warning system for the anticipation of environmental threats and environmental monitoring and assessment capacity-building; coordination of UN System-wide Earthwatch and contribution to "Development Watch", development of networks and conceptual frameworks for integrated assessment and reporting on environment and sustainable development.	***Informatics*** - Promotes and develops regional, subregional and national informatics capabilities with a view to facilitating access to modern production technologies and microelectronics-related products, as well as upgrading existing technologies through computer applications; *Industrial operations technology* - Aims at improving self-sufficiency and sustaining industrial development in developing countries through the development, choice, adaptation and transfer of know-how and technology in four main sub-sectors; agro-based industries, chemicals, and the metallurgical and engineering industries. Industrial and Technological Information Bank - develops and disseminates industrial environmental and energy information products and services.	***Hydrology and Water Resources Programme*** - Promotes hydrology, in support of sustainable development of water resources and environmental management, by effectively matching the scientific and technological capabilities of Hydrological Services with the needs of wider community for information about water and for protection from the threat of natural disasters. *World Weather Watch Programme* - Provides meteorological and related geographical and environmental information; concentrates on the monitoring and forecasting of special weather phenomena, such as tropical cyclones, monsoons, droughts, etc., and supports the transfer of technology to improve warning systems and for collaboration and coordination with other international organizations in activities related to disaster mitigation. Carries out assessments of scientific knowledge on climate change, climate impacts and policy options.

Information (Cont'd)				
DPCSD	**WIPO**	**UNCTAD**	**UNESCO**	**UNFPA**
Conducts workshops and expert consultations, publishes and disseminates information and cooperates with UN and non-UN system entities.	*Access to and use of the technological information contained in patent documents* - Advises on how best to acquire, store, manage and access patent documents, particularly in the light of the newer technological possibilities; provides to developing countries technological information contained in patent documents, promotes its dissemination and provides training in the use of the technological information contained in patent documents.	*Information Services* - Aims at assisting interested Member States in strengthening their capability to obtain and manage science and technology information for development.	*Science* - Aims at improving information on science, technology and environmental management; *Communication, Information, Informatics in the Service of Humanity* - Aims at fostering regional cooperation in information services, systems and networks; *Statistical programmes* - Aims at improving national statistical capabilities, disseminating statistical information on science, and updating and harmonizing international classifications and standards.	*UNFPA's plan of action for gender, population and development* - Aims, inter alia, at helping countries establish income-generating activities for women, and improving the technical dimension of women, population and development activities through the issuance of publications and reports.
IAEA	**ITU**	**UNU**	**ECE**	**ESCAP**
Programme: Physical and Chemical Sciences - The strategy under this programme places greater emphasis on the establishment of nuclear and atomic databases required for fusion reactor technology, radiotherapy and nuclear geology. The subprogrammes include: a) *Nuclear and atomic data for applications*; b) *Nuclear instrumentation*; c) *Theoretical physics*, at the International Centre for Theoretical Physics in Trieste, Italy; d) *Utilization of research reactors and particle accelerators*; e) *Chemistry*.	*Enhancement and operation of the information technology infrastructure*, training, development and maintenance of computer application systems; and Introduction of Management Information Systems.	*Microprocessors and Informatics* - Focuses on increasing the contribution of microprocessor technology and informatics in order to meet the needs of developing countries.	*Science and Technology conducted under the auspices of the Senior Advisers to ECE Governments on Science and Technology* - Provides a forum for the exchange of information and experience on developments and changes in national science and technology policies, priorities and institutions, as well as on major scientific and technological trends and their implications, and for the study of selected issues in science and technology. The majority of the other ECE subsidiary bodies promote the exchange of information on sectoral technologies and their application.	Continues the promotion of regional cooperation among the Member States, particularly in the utilization of new technologies; Promotes regional and subregional cooperation through sharing experience, institutional facilities and dissemination of information in the fields of industrial and technological development.

Information (Cont'd)				
UNICEF	**IMO**	**DPSCA**	**UNFSTD**	**ICAO**
Health Systems Development - Operations research, training guidelines and networking in the area of community co-management, women's role in decision-making, community monitoring, and community perceived quality of care.	Cooperates with United Nations system and relevant international, regional and non-governmental organizations for a coordinated approach to maritime safety problems and avoid wasteful duplication. *Marine Environment Protection* - Cooperates with all States in exchanging information and in facilitating prompt assistance in the event of a major oil pollution incident.	Provides outer space-related scientific and technical information to Member States, United Nations offices and other organizations.	Science and technology referral system for journalists: This brings together national scientists and journalists to improve the science and technology content of the work of the journalists.	Publishes a considerable number of Technical Manuals and Circulars as guidance material in all fields of its technical activity.
WORLD BANK				
Supports use of environmentally sound technologies; and produces environmental guidelines for use of cleaner technologies				

New Technologies				
IAEA	**UNIDO**	**UNEP**	**FAO**	**HABITAT**
Programme: Human Health - It addresses issues, in collaboration with WHO, where nuclear techniques are especially efficient and cost-effective in the prevention, diagnosis, prognosis and treatment of diseases, or in the analysis of environmentally related health problems. The subprogrammes include: a) *Nuclear medicine*; b) *Applied radiation biology and radiotherapy*; c) *Dosimetry*, accurate determination of radiation doses; d) *Nutritional and health related environmental studies* - application of nuclear related techniques. *Programme: Nuclear Power and fuel cycle* - This programme addresses nuclear power planning and implementation; assessment and improvement of nuclear power plant performance improvement of nuclear power plant performance; improvement of reactor technologies; development of advanced reactor systems; nuclear fusion; reactor fuel technology and performance, spent fuel management, technology and safety.	*New Technologies* - Aims at building up awareness in the developing countries of new technologies and the interrelationship between the development and industrial application of those technologies; assisting in creating or strengthening endogenous capabilities in new technological areas, as well as promoting international co-operation and collaboration in those areas; *Biotechnology and Genetic Engineering* - Aims at upgrading existing capabilities in biotechnology and developing co-operation activities at the national, subregional and regional levels in order to facilitate developing country access to state-of-the-art developments in the area; *Promotion of Cleaner Production* - Supports the adoption of cleaner production in the industrialization of developing countries, including through promotion of cleaner production technologies.	*Energy, industry and transportation* - Activities include the coordination of the cleaner production network, the APELL programme to prevent and respond to technological accidents, the promotion of action to integrate environmental considerations into industrial development; *Terrestrial Ecosystems* - activities include strengthening of the regional microbiological resources centres (MIRCENS) network for continued pilot application of environmentally sound biotechnology and assessment of the ecological and socio-economic impact of biotechnology applications.	*Agricultural Applications of Isotopes and Biotechnology* - this sub-programme is implemented by the Joint FAO/IAEA Division. The applications of isotopes and biotechnology are aimed at identifying and tracing the movement of plant nutrients from the soil, water and air to the plant and its products; to study the fate of pesticides and their residues in crops, livestock and the environment; to alter genetic material, to induce mutations for plant improvement, sterility for insect control or for killing pathogens and spoilage organisms in food. Modern energy conversion technologies of biomass, and new solar and wind systems, are among the elements of the programme.	*Energy sector* - Promotes biomass energy technologies to meet the needs of both the urban and rural poor, and carries out activities in the field of research and technical cooperation. *Transportation* - Promotes new and environmentally-sound technologies in the area of transportation and makes the existing transport systems more efficient, cost effective and less damaging to the environment.

New Technologies (Cont'd)				
IAEA	**ILO**	**WIPO**	**ESCWA**	**UNU**
Programme: Food and Agriculture - Operated jointly with FAO, the programme is designed to assist Member States, through research, advisory services and technical cooperation, in using nuclear techniques in their agricultural research and development to improve food production. Reduce food losses and protect the environment. Greater emphasis is being placed on nuclear biotechnology tools and on environmental problems. The subprogrammes under this programme, all of which have science and technology components, include a) *Soil fertility, irrigation and crop production*; b) *Plant breeding and genetics;* c) *Animal production and health*; d) *Insect and pest control*; e) *Agrochemicals and residues;* and f) *Food irradiation.*	*Employment effects of new technologies* -- focuses on the employment implications of pro-poor environment-friendly biotechnologies; identifying strategies for the possible redeployment of Third World work force; and employment effects of the application of microelectronics both in industrialized and developing countries.	Studies and gives advice on the legal implications of certain new technologies for the protection of intellectual property rights. Provides patent documents, which are an important source of information on new technologies, and promotes their dissemination.	Continue the promotion of regional cooperation among the member States, particularly in the utilization of new technologies.	*Implications of New Technologies (UNU/INTECH)* - aims at improving the understanding of the economic and social effects of new technology innovations, and the development of policy to exploit the new opportunities which are available to developing countries.

New Technologies (Cont'd)				
ITU	**DPSCA**	**IMO**	**ECE**	**ESCAP**
Development of regional telecommunication networks: The work focuses on the development of networks; modernization of services; providing assistance in introducing new technologies, services and methodologies, and training technical staff; development of regional satellite communication networks.	Prepares technical studies of new developments in space technology and their economic and social applications.	Promotes and exchanges results of research and development programmes relating to the enhancement of the state-of-the-art of oil pollution preparedness and response, including technologies and techniques for surveillance, containment, recovery, dispersion, clean-up and mitigating the effects of oil pollution, and for restoration. Promotes the holding of international symposia on subjects, including technological advances in oil pollution combating techniques and equipment.	The sub-programme includes low-waste technology and its application; construction of vehicles; complex utilization of new materials using advanced low- and non-waste process technologies; low-waste processes and automated equipment for the production of precision instruments for engineering industries; technological measures for the promotion of environmentally sustainable agriculture and production of healthy food; and technologies related to new sources of energy.	Assists member countries through assessment, introduction and support of new and emerging technology within the context of the subprogram on regional economic cooperation.
ICAO	**WMO**	**UNESCO**	**WORLD BANK**	
Develops a worldwide plan for progressive coordinated introduction of global navitation satellite systems and assists States in implementing the plan.	Introduces computer technology in meteorology, World Weather Watch, Climatology, Water Resources Management, Satellite Observations and measurement techniques.	*Renewable Energy Sources* - Promotes the development and use of renewable energy sources for sustainable development, in particular solar energy. *Biotechnology* - Aims at developing knowledge and partnership among member states in microbial, plant and aquatic biotechnologies.	Supports use of environmentally sound and clean technologies in its projects.	

Policy				
DPCSD	**UNCTAD**	**UNU**	**UNICEF**	**UNESCO**
Assists the Commission in monitoring and review of the implementation of cross-sectoral components of Agenda 21 related to education, science, transfer of environmentally sound technologies, cooperation and capacity-building, in particular in relation to sectoral programme areas of Agenda 21. Undertakes activities concerning coordination of support for the Commission on Science and Technology for Development, substantive support and coordination for the Committee on New and Renewable Sources of Energy and on Energy for Development, and coordination of inputs for the Committee on Natural Resources, as well as related work for the Economic and Social Council, the General Assembly and other intergovernmental bodies. (Cont'd)	Substantive servicing of the Commission on Science and Technology for Development, Trade and Development Board, and the Commission on Transnational Corporations. *Enhancing the Contribution of Transnational Corporations to Development* - its aims include: (a) providing policy recommendations and assisting host countries, in attracting and maintaining an increased flow of capital, technology skills and entrepreneurship; and (b) examining the role and impact of transnational corporations in the context of environment and development.	*UNU/INTECH Policy Studies* - Aims at providing UNU/INTECH with the opportunity to address major policy issues of current relevance, or which are likely to arise in the near future and to widely disseminate reports on the policy studies; *The Japanese Experience* - Seeks to analyze technological restructuring in the post-war period up to the most recent development in energy saving industrial development in Japan, as one of the activities under the UNU's Eco-Restructuring for Sustainable Development Programme which aims at profound economic and technological changes, in a transition towards sustainable development.	*Health Promotion* - Technical policy development and country programme support in the prevention and reduction of various diseases, and monitoring of such programmes.	*Programme: Science and Technology for Development* - Aims at facilitating the formulation of reforms in energy utilization for sustainable development. *Programme: Environment and Natural Resources Management* - Aims at providing decision makers with guidance on environmental protection, management of natural resources, and the sustainable management of terrestrial, aquatic and marine ecosystems.

Policy (Cont'd)				
DPCSD (Cont'd)	**WIPO**	**ECE**	**ECE (Cont'd)**	**FAO**
Assists Commission on Sustainable Development and its open-ended working groups in monitoring and review of the progress achieved in the implementation of Agenda 21 and other outcomes of the UNCED, and in elaborating policy recommendations on sustainable development issues.	Gives advice on policies relating to the protection and use of intellectual property rights.	The Senior Advisers to ECE Governments on Science and Technology undertake quadrennial reviews of overall national science and technology policies including those related to international science and technology cooperation.	They also examine national policies and legislation aimed at increasing the effectiveness of R and D activities, and issues related to state policy on science and technology aimed at promoting innovation in industry. The other ECE subsidiary bodies review sectoral policies which sometimes include science and technology policy components.	Promotes and supports appropriate policies and seeks application of science-based technologies, viz., the conservation of natural resources; the adoption of improved methods for agricultural production; the improvement of the processing, marketing and distribution of food and agricultural products; the adoption of appropriate policies for agricultural credit and, at the international level, agricultural commodity arrangements.
	ESCWA	**ECLAC**	**ESCAP**	**ECA**
Assists the Commission in monitoring and review of the implementation of Agenda 21 provisions related to sectoral clusters of its multi-year programme of work. Assist the Commission in carrying out its functions related to consideration of information provided by Governments, regarding the activities they undertake to implement Agenda 21, the problems they face, and other environment and development issues they find relevant.	Assists Member States in identifying the requirements for formulating science and technology policies and plans within environmentally sound and sustainable development; in developing local technological capabilities for participating in all aspects of technology policies; in formulating guidelines and measures to deal with reverse transfer of technology; and in analyzing and assessing the implication of new advances in technologies on their development effort.	*Industrial, scientific and technological development* is implemented by the Joint ECLAC/UNIDO Industrial and Technological Development Unit. Its efforts centre on a systematic analysis of the national and regional evolution of industrial, scientific and technological activities, and on designing methodologies adapted to specific regional and country situations to be used in developing national and sectoral strategies and policies. Emphasis is placed on follow-up, analysis and dissemination of successful experiences at the policy, institutional and entrepreneurial levels.	Institutional/policy, infrastructure and strategies for industrial and technological development.	The sub-programme on *Science and technology for development* places emphasis on establishing and strengthening structures at the national subregional and regional levels for the development and application of science and technology programmes and facilitating processes for technological policy-making and planning.

Policy (Cont'd)				
WMO	**UNEP**	**WORLD BANK**		
Contributes to policy developments through the work of the IPCC.	Coordinates environmental programmes within the UN system, advises intergovernmental bodies of the UN System on environmental programmes, secures cooperation of relevant scientific and professional communities, provides advisory services in environment, provides national environmental management support, undertakes environmental assessment, and information for disaster prevention, preparedness and response.	Develops techniques to link economic activity with environment, researches incentive systems for environmental improvement, develops policy papers and pursues policy dialogue on environmental issues. Assists countries to prepare national strategies to improve environmental management.		

Research				
WMO	**UNFPA**	**WHO**	**UNICEF**	**IAEA**
Applications of Meteorology Programme - Studies weather and climate as they affect agriculture, the selection of crops and their protection from disease and deterioration in storage, soil conservation, phenology and physiology of crops and farm animals. *Atmospheric Research and Environment Programme* - Helps Members to implement research projects; to disseminate relevant scientific information; to draw the attention of Members to outstanding research problems and assist them in incorporating the results of research into operational forecasting to monitor the long-term trend and; to serve as an early warning system to detect changes in atmospheric concentrations of 'greenhouse' gases and changes in the ozone layers; and to improve their weather services; and promote and coordinate Members' research efforts. *World Climate Programme* - Improves the understanding of climate processes through research, detect and warn governments of impending climate variations or changes; provides reliable climate data for both practical applications and research purposes; promotes applications of climate knowledge in various areas; studies the 'greenhouse effect' of changes in the atmosphere; provides estimates of the socio-economic impact of climate changes, and assists informing national policies accordingly.	*Family planning* - activities include contraceptive research aimed at widening the range of safe contraceptives available; and devising and/or updating technical, managerial and service guidelines on contraceptive technologies;	*Health promotion and care Research promotion and development* - Promotes research supportive of the Global Strategy for Health for All and coordinates the development of relevant scientific activities in this area.	*Child survival* - Major link between the research and implementation of results through the global immunization programme. Research and application of low-cost technologies for water supply and sanitation and assessment of engineering equipment and materials.	*Programme: Radiation Protection and Nuclear Safety* - This programme includes development of new standards for protection against ionizing radiation, control and safe use of radiation sources; operational safety services; management and mitigation of accidents; validation of environmental assessment models (VAMP) to review radionuclide transfer processes and develop model test scenarios.

Research (Cont'd)				
ILO	**UNESCO**	**HABITAT**	**UNEP**	**FAO**
Technologies for sustainable livelihoods - Investigates the impact of unequal agrarian structures on the environment and on technology-environment-employment interrelationships as well as identifies concrete measures to operationalize Rio Earth Summit Agenda 21 concepts like environmentally sound technologies and sustainable livelihoods.	*Programme: Science and Technology for Development* - Aims at fostering international, regional and sub-regional cooperation in research and research-related advanced training in the basic and engineering sciences; *Programme: Environment and Natural Resources Management* - Aims at increasing and sharing knowledge about water resources, ecosystems, biodiversity, oceans and coastal zones, mineral and non-renewable resources and natural hazards. Major scientific programmes/bodies include the Intergovernmental Oceanographic Commission (IOC), the Man and the Biosphere (MAB) Programme and the International Hydrological Programme (IHP).	*Construction sector* - Conducts baseline studies on documenting current trends in the construction industry regarding the use of non-renewable resources and current levels of environmental pollution caused by on-site and off-site activities.	Supports research in natural resource accounting, resource assessment of freshwater, terrestrial ecosystems, living marine resources, industry and environment, and sectoral environmental assessments.	Headquarters, Regional Office and field activities include; strengthening national agricultural research systems; supporting regional agricultural research institutions; promotion of interdisciplinary research, e.g. on small-scale farming in semi-arid zones; provision of regional training courses on research management and impact analysis; monitoring, evaluation and promotion of the exchange of information and experience; assistance in the application of successful technologies in food production, etc.
UNU	**WIPO**	**ITU**	**WORLD BANK**	
Software Technology for Developing Countries (UNU/IIST) - Aims at research and development (R&D) projects and training courses and other activities in order to promote significant self-reliance in developing countries, through its ability to develop its own software and to apply a variety of available software.	Provides to developing countries state-of-the-art reports and monographs on specific fields of technology based on technological information contained in patent documents; encourages and facilitates the use of such information by Research and Development institutions.	Deals with research for development and manufacture of new generation telecommunication technologies and systems; and undertakes studies on scientific and technological questions.	Undertakes studies on urban environment, pollution, effects of trade on the transfer of environmentally sustainable agricultural technologies.	

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Technology Assessment				
UNCTAD	**UNIDO**	**IAEA**	**ESCAP**	
Advance Technology Assessment System (ATAS) - Focuses on assessing the impact of new and emerging technologies on development.	*Programme: Industrial technology development* - *Industrial Technology Monitors* - Aims at increasing the awareness of decision makers in different sectors in developing countries to the implications of emerging technological changes through a monitoring network and publications	*Programme: Industry and Earth Sciences* - Main activities under this programme include assessment and transfer of radiation technology; assessment and transfer of nucleonic control systems and radiotracer applications in the mineral industry	Identifies technological development issues and areas and conducts studies to provide member Governments with alternative strategies for technological development.	
Transfer of technology				
UNDP	**UNIDO**	**UNCTAD**	**WHO**	**ICAO**
Technology Transfer and Adaptation (TTA) - Aims at : (a) the cultivation of technology which may be of unique import to a country's effort to find a niche in the world market; (b) to get as many segments of the society as possible involved in science both now and in the future; (c) the development of networking and linkages between and among individuals and groups involved in science and technology in order to induce competitiveness, global communication and commercialization.	*Environment programme* - Emphasizes transfer of environmentally sound technology; supports the implementation of Agenda 21 especially in areas such as integrating environment and development in decision-making, protection of the atmosphere, environmentally sound management of biotechnology, strengthening the role of business and industry, transfer of environmentally sound technology, chemical safety, human resources development, and capacity building for applied research and development.	*Economic Cooperation among Developing Countries* - Its orientation includes promoting increased investment flows and transfer of technology among developing countries. *Transfer of Technology* - Emphasises enhancement of national technological and innovative capabilities in developing countries; on assessing the challenges and opportunities created by technological change.	*Protection and promotion of the health of specific population groups* - Supports the continuous evolution and adaptation of technology and approaches aimed at protecting and promoting the health of specific population groups; including human reproduction research; *Diagnostic, therapeutic and rehabilitative technology* - Promotes and supports the development, use and adaptation of this technology and the proper use of medicinal drugs and medical devices appropriate for specific national systems and institutions.	Assists Member States in developing the technical infrastructure necessary to the safe operation of civil aviation. ICAO's whole technical air navigation work programme provides a means by which civil aviation specialists from all Member States can develop their knowledge of civil aviation technology. Fosters environmentally sound technologies through the Committee on Aviation Environmental Protection which develops provisions to control aircraft noise and aircraft engine emissions.

Transfer of technology (Cont'd)				
HABITAT	**FAO**	**UNICEF**	**UNEP**	**IAEA**
Transfer of technology - stresses the necessity to avoid duplication in a number of settlements infrastructure areas, for which the UNCHS has a leading role, and to assist the Osaka Centre in developing programmes of technology transfer in the fields of water, solid wastes, sewage, energy and transportation.	*Environment, Energy and Sustainable Development* - the science and technology related component of the sub-programme related to energy technology development and application aimed at promoting small- and medium-scale decentralized energy technologies in rural areas.	*Water Supply and Environmental Sanitation* - Installation and maintenance of water supply technologies and assessment of hydrogeology and hydrology, geophysics, drilling technologies and methodologies, etc.	*Transfer of environmentally sound technology* - Aims at developing international guidelines on what information on potential environmental impacts the exporters of technology would provide to importers; *International environmental technology centres* - Activities aim at facilitating access by and transfer of technology to developing countries in respect of cleaner production methods, techniques and technologies;	*The IAEA's Technical Cooperation Activities*: Provides technical cooperation for developing countries, with emphasis on capacity-building and development and transfer of technology.

Transfer of technology (Cont'd)				
UNESCO	**ESCWA**	**ILO**	**IMO**	**ESCAP**
Programme: Science and Technology for Development - Aims at enhancing use of environmentally sound technologies and transfer of knowledge and know-how between countries (North-South, South-South), and institutions of higher education and industrial facilities, in areas such as water and waste-water treatment, solid waste management, the planning and implementation of large-scale technological projects, biotechnology and solar energy. *Programme: Environment and Natural Resources Management* - Aims at enhancing use of environmentally sound technologies and transfer of knowledge and know-how between countries (North-South, South-South), and higher education and industrial facilities, in areas such as land, biodiversity, freshwater, marine environments, non-renewable resources, and natural hazards.	Continues the formulation of measures and mechanisms to make the process of technology transfer more effective in particular the transfer of pollution-control technologies.	*Technologies for the informal sector, microenterprises and women workers* - Identifies methods to induce the private sector to respond to the technological needs of the informal sector which faces difficulties in acquiring and applying technology; assesses the quantitative and qualitative employment effects of technological change, flexible specialization and organization of production among small and medium sized enterprises in developing countries, and disseminates improved technologies to diversify and expand women's employment in non-traditional forms of production through technical cooperation projects.	Undertakes to cooperate, subject to their national laws, regulations and policies, in the transfer of technology in respect of oil pollution preparedness and response.	Organizes seminars, conferences, training courses, expert group meetings and workshops on, inter alia, choice for acquisition and transfer of technology.
WIPO	**WMO**	**WORLD BANK**		
Provides training in negotiating techniques and substantive issues relating to the transfer of technology protected in intellectual property rights; provides assistance in the identification of relevant technology through state-of-the-art search reports.	Contributes to technology transfers of hydrological applications in water resources assessments; establishes Regional Meteorological Training Centres; and participates in the UNDP Programme in the fields of meteorology and operational hydrology.	Promotes environmentally sound technologies through research, policy documents and strategy papers.		

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Annex IV

LIST OF CONTRIBUTORS

The following organs, organizations and agencies made substantive contributions to the present report:

United Nations system

Department for Development Support and Management Services of the United Nations Secretariat

United Nations Children's Fund

United Nations Conference on Trade and Development

United Nations Development Programme

United Nations Fund for Science and Technology for Development

United Nations Environment Programme

United Nations Population Fund

United Nations University

Economic Commission for Africa

Economic Commission for Europe

Economic Commission for Latin America and the Caribbean

Economic and Social Commission for Asia and the Pacific

Economic and Social Commission for Western Asia

United Nations Centre for Human Settlements

International Labour Organization

Food and Agriculture Organization of the United Nations

United Nations Educational, Scientific and Cultural Organization

International Civil Aviation Organization

World Health Organization

World Bank

International Telecommunication Union

World Meteorological Organization

International Maritime Organization

World Intellectual Property Organization

United Nations Industrial Development Organization

International Atomic Energy Agency

Non-United Nations system

Organisation for Economic Cooperation and Development

Commonwealth Secretariat